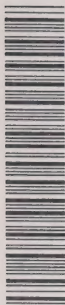


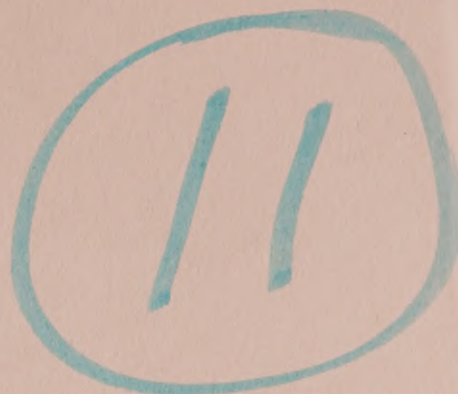
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ROYAL COMMISSION OF INQUIRY INTO CERTAIN
DEATHS AT THE HOSPITAL FOR SICK CHILDREN AND
RELATED MATTERS.

Rowe: in ch.

Hearing held in Court Room 20
Court House
361 University Avenue
Toronto, Ontario

The Honourable Mr. Justice S.G.M. Grange

Commissioner

P.S.A. Lamek, Q.C.

Counsel

E.A. Cronk

Associate Counsel

Thomas Millar

Administrator

Transcript of evidence
for

July 13th, 1983

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ROYAL COMMISSION OF INQUIRY INTO CERTAIN
DEATHS AT THE HOSPITAL FOR SICK CHILDREN
AND RELATED MATTERS.

Hearing held in Court Room 20,
Court House, 361 University
Avenue, Toronto, Ontario, on
Wednesday the 13th day of
July, 1983.

THE HONOURABLE MR. JUSTICE S.G.M. GRANGE - Commissioner
THOMAS MILLAR - Administrator
MURRAY R. ELLIOT - Registrar

APPEARANCES:

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	and 35 Registered Nurses at
	The Hospital for Sick Children

(Cont'd)



APPEARANCES: (Continued)

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G.R. STRATHY) P. RAE)	Counsel for Phyllis Trayner - R.N.A.
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J. SHINEHOFT	Acting for Lorie Pacsai and Kevin Garnet (parents of deceased child Kevin Pacsai)
F.J. SHANAHAN	Counsel for Mr. & Mrs. Dominic Lombardo (parents of deceased child Stephanie Lombardo)



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DM/ak

1
2 ---Upon commencing at 10:00 a.m.

3 THE COMMISSIONER: Yes, Mr. Lamek.

4 MR. LAMEK: Thank you,
5 Mr. Commissioner. Dr. Rowe, please.

6 DR. RICHARD DESMOND ROWE, Resumed
7 DIRECT EXAMINATION BY MR. LAMEK: (Continued)

8 Q. Dr. Rowe, yesterday we were
9 just approaching the meeting ^{being} ~~between~~ the Mortality
10 and Morbidity Conference which was arranged for and
11 held on September 5th, 1980. But before I go on to
12 that conference, can I take you back to something
13 that we mentioned yesterday. I asked you yesterday
14 about any discussions or conversations that you
15 recalled having had with nurses in July and August
16 as to their concerns about the number of untoward
17 deaths in those two months. Do you recall that?
18 You told me, as I recall your evidence that you
19 could only recall one such conversation and that
20 with, I think you described ^{her} ~~as~~ a nursing specialist.
21 You gave me your recollection of the evidence, and
22 I am sorry I haven't had a chance to look at the
23 transcript this morning. Could you remind me, please,
24 what your recollection was of that conversation?

25 A. My recollection is that the
matter was put to me that with the increased number



1
2 of deaths the nurses were extremely concerned about
3 whether they were covering all the needs for the
4 patients. That it might be helpful if there was
5 some way that the physicians could talk to the nurses
6 about that. I don't recall whether we decided at
7 that particular conversation, but we did obviously
8 decide shortly afterwards in any event that a way
9 to accomplish that goal would be to have a conference
10 in which some of the deaths could be reviewed, or
11 any of the deaths could be reviewed for that period
12 of time and which could be attended by nurses as well
13 as physicians and trainees.

14 I am unable to recollect all the
15 details of that arrangement. I think the fact that
16 the meeting was held on a Friday, at 1 o'clock,
17 would support the view that this was to be held
18 particularly for the nursing group.

19 Q. Yes. Doctor, that is the
20 extent of your recollection of that conversation
21 with the nursing specialist, I take it?

22 A. Yes. Bearing in mind that
23 I had many conversations with a nursing specialist
24 on a fairly regular basis during the year.

25 Q. As I recall your evidence, you
could not recall any other conversation in the July-



1
2
3 August period at which there had been discussion
4 between you and the nursing specialist as to the
5 increased number of deaths on the ward.

6 A. No, I can't recall anything
7 like that.

8 Q. Or with any other member of
9 the nursing staff as I remember your evidence.

10 A. That is correct, even though
11 I was on the ward for a period in service during
12 July.

13 Q. Was it your understanding that
14 the nurses were concerned that they were in some
15 way, putting it crudely, falling down on the job,
16 not doing a proper job in taking care of these
17 patients and they wanted to be reassured that wasn't
18 the difficulty.

19 A. That was the impression I got,
20 I am not sure whether they wanted to be reassured,
21 but the implication was that this would be helpful
22 because I don't think anybody else felt they were
23 falling down at the job, at least we certainly
24 didn't.

25 Q. When you decided then to
convene the meeting, which was held on September 5th,
to discuss certain of the deaths, was it therefore



1
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3 a part of your purpose to provide reassurance to
4 the nurses that these deaths were not attributable
5 to any lack of skill or care on their part?

6 A. Yes, that was one of the
7 intents.

8 Q. And it was your intention in
9 that way I take it to calm the concerns that you
10 understood they had?

11 A. Yes.

12 Q. I take it, Doctor, you have
13 no recollection of any conversation with any nurse
14 in July or August, in which the nurses expressed
15 concern that they were under-staffed and not able,
16 because of under-staffing, to provide proper care to
17 these patients, is that fair?

18 A. I don't recall any such
19 conversations.

20 Q. And therefore the impression
21 you told us about yesterday as to the under-staffing
22 of the ward at night was not something that you
23 recalled having been raised with you by any member
24 of the nursing staff.

25 A. I don't recall anything of that
sort.

Q. Let's move on to that September



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5th meeting. You called that meeting I take it,
Doctor?

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A. Yes.

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Q. You attended it?

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A. Yes.

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Q. And indeed you chaired it,
did you not?

8

A. Yes.

9

Q. Doctor, minutes of the meeting
were prepared, did you prepare minutes of that
meeting?

10

11

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A. Yes, I did.

13

Q. For circulation to those who
had attended and perhaps others?

14

15

A. The circulation was to the
Cardiology staff, to the Chief Cardiac Fellow and
to the Head Nurses of the two wards.

16

17

Q. Doctor, I am showing to you a
one sheet set of minutes, apparently of the M and M
Conference, which I take it to be Mortality and
Morbidity Conference held on Friday, September 5,
1980 at 1:00 p.m. in the Ward 4A/B Conference Room,
is that a copy of the minutes that you prepared?

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A. Yes, it is.

23

Q. Thank you. Do you have a

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copy available to you?

A. Yes, I do.

MR. LAMEK: Could that be the next
exhibit, Mr. Commissioner.

THE COMMISSIONER: Yes.

---EXHIBIT NO. 45: Copy of Minutes of Meeting
held September 5th, 1980.

MR. LAMEK: Q. Now, Doctor, those
who are recorded as having been present at the
meeting are identified not so much by name as by,
if you like, job classification; seven nurses,
three staff cardiologist, four Fellows.

A. Yes.

Q. Are you able to recall who
by name was at the meeting?

A. No, I cannot recall that.
I felt at that time since I was both chairing the
meeting and recording who was there that I did an
extraordinary job in actually adding up the totals.

Q. Doctor, understand me, I am
not being critical in any way, but it would have been
helpful perhaps if you could have recalled the names.

The meeting was held in the
Conference Room on the Cardiology Wards. Did you
prepare any notes in preparation for the meeting?



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3 A. I am not sure whether I did
4 or not. The usual procedure that we follow with
5 any sort of conference in which material of this
6 sort is being presented^{is} that the Cardiac Fellow
7 prepares the summary of the case. I probably
8 undoubtedly selected the three cases that we would
9 start with.

10 Q. Yes.

11 A. And I would have gone over
12 that material with the Fellow who was chairing the
13 conference who I thought was Dr. Jedeikin.

14 Q. But I take it that if indeed
15 you did at any time have any notes made in prepara-
16 tion of this meeting they are not now available?

17 A. No.

18 Q. And I take it that nothing
19 survives in your files by way of a record of the
20 meeting other than the minutes which we have just
21 marked as an exhibit?

22 A. That's all.

23 Q. Do you recall seeing anybody
24 at the meeting taking any notes, Doctor?

25 A. I don't recall seeing anybody
taking any notes, but I wasn't looking for that.

Q. Now, I will be showing to you



1
2
3 in a moment, Doctor, a document consisting of five
4 and a bit pages of manuscript notes which I tell
5 you comes from a book called the Communications Book
6 on Ward 4, and I believe the notes to be in the
7 handwriting of the head nurse, Mrs. Radojewski.
8 Doctor, I have provided you with a copy of this
9 document a couple of days ago. I will show it to
10 you and ask you if you have had an opportunity to
11 read it since then?

12 A. Yes. That is the document
13 that you gave me. That is the d

14 Q. Doctor, having now had an
15 opportunity to read those notes, do they appear to
16 you to be a reasonable record of what you recall
17 was discussed at the meeting on September 5th?

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A. Yes, I do. In fact, if I had known that that was being conducted I would have asked her to perform the official minutes.

Q. To prepare the minutes. And I take it they assist you in your recollection as to what was said at the meeting?

A. Yes, yes they do.

MR. LAMEK: I wonder, Mr. Commissioner, if that might be the next exhibit.

THE COMMISSIONER: Yes, Exhibit 46.
---EXHIBIT NO. 46: Excerpt from Communications Book.

MR. LAMEK: Q. Now, may we refer, Dr. Rowe, for the moment to the manuscript notes because they appear to include some comments by way of introduction which are not recorded in the official minutes of the meeting, if I can put it that way.

A. No.

Q. It is indicated that Dr. Rowe and Contreras were present. Who was Contreras, please?

A. Dr. Contreras was at that time a Cardiac Fellow.

Q. All right. Do you have any recollection of his having been present at the meeting?



1
2 A. I can't recall exactly which
3 Fellows were there and which weren't.

4 Q. Well, the maker of these notes
5 didn't even record by ~~the~~ number the people who were
6 present, Doctor, so, you were ahead on that one.

7 A. Yes.

8 Q. There's an indication that there
9 was a reference to about 100 deaths a year, pathology
10 conference usually Monday at 1:00 p.m. from September
11 through the Spring. Did you make a comment about there
12 being 100 deaths a year?

13 A. I would presume I did. I
14 can't recall but it looks from this manuscript as
15 though I made some introductory remarks about the
16 reason we were holding the conference.

17 Q. Yes.

18 A. And I would have started off
19 by giving a background of the number of deaths,
20 cardiac deaths in the hospital each year.

21 Q. Now, I take it from the number,
22 which of course is somewhat different from the
23 number that we were hearing yesterday, ~~is~~ that you
24 were counting from a rather wider base than was
25 Dr. Gilmour-Bryson in preparing her statistics?

A. Oh, yes.



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Q. Can you tell me please the base from which you count approximately 100 cardiac deaths a year?

A. Well, that would include cardiac deaths on the neonatal floor, the operating room, in the intensive care unit on the second floor, the Cardiac Wards 4A and B and any other cardiac death that occurred on any other ward of the hospital.

Q. When you say cardiac deaths well, I wouldn't suggest a meaning to you, can you tell me what you mean by cardiac death in that context?

A. That would mean anybody who had died from the effect of the heart disease or who had significant heart disease discovered at autopsy that might not have been recognized beforehand, but the number of those of course would be relatively small and confined to the neonatal unit.

Q. I take it from what you have said it would include deaths of patients whose cause of death, immediate cause of death may have been something other than a cardiac problem but who also had cardiac difficulties.

A. In which the cardiac problem contributed to the death, yes.



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Q. For example, a child dying on the Infectious Diseases Ward may have died primarily as a result of the infectious disease, but if he had a cardiac problem and was felt to have contributed in some way to the death, that would have been called a cardiac death?

A. Yes.

Q. Now, Doctor, three deaths were discussed at the meeting: those of Bilodeau, who died July 22, Turner who died August 1 and Taylor who died on July 27th. Now, by the time the meeting was held, of course, there had been a further death on the Ward, had there not, that of Laurette Heyworth on September the 2nd?

A. Yes.

Q. Yes. You told us a moment ago that it was you who selected the cases to be discussed and reviewed at the September 5 meeting. Was that done in conjunction or consultation with Dr. Jedeikin?

A. It might have been one of the other Fellows of course but I think it was Dr. Jedeiken.

Q. But your recollection is that in discussion with someone else in your division,



1
2 a selection was made of these three cases for review
3 at that meeting?

4 A. Yes.

5 Q. Can you tell me please on what
6 basis the selection was made, why these three?

7 A. Well, these three patients
8 were good examples of a group of patients in whom,
9 in our view, death was inevitable and, therefore,
10 they seemed to be good cases to start if one of
11 the major concerns among nursing was perhaps the
12 deaths weren't inevitable and that they might have
13 had some difficulty in existing with their concern
14 about this.

15 Q. So, I take it in order to
16 arrive at that selection, you had reviewed or had
17 at least discussed the charts of the July, August
18 mortalities in order to make the selection that you
19 have just described for us?

20 A. Yes, I had.

21 Q. Okay. Now, can we look at the
22 first of those, please, the death of Andrew Bilodeau?

23 A. Yes. May I make a point first,
24 Mr. Lamek?

25 Q. Yes of course, Doctor.

A. As you know, as the Head of the



1
2 Division, I have examined the material involved in
3 these consecutive cases and as the Head of the
4 Division I am responsible for the management of the
5 overall efficiency and conduct of the division, but
6 I think it should be clear that with any individual
7 patient in whom I was not the responsible physician
8 at the time of death, I may not be able to answer
specific detail.

9 Q. No, I appreciate that, Doctor,
10 and if we get to the point in the discussion of
11 any of these charts where you do not have the detail
12 in your head, then by all means tell us that. I
13 take it though that it is reasonable to direct
14 your attention to specific parts of the chart and
ask for your comments upon those?

15 A. Of course.

16 Q. Yes. Now, Doctor, the Hospital,
17 in addition to the diagrams that we looked at
18 yesterday, has prepared for us a diagram of the
19 heart of each of the children to whom we will be
20 referring to assist in our understanding of the
21 nature of each child's defects. I wonder if I could
get some help.

22 We are going to be putting up beside
23 you and slightly behind you, Doctor, the diagram that
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has been prepared of the heart of Baby Bilodeau.

We will leave beside it the diagram you talked about yesterday of the healthy heart and we hope that it doesn't fall around your ears.

Now, Doctor, perhaps the easiest way to start is to ask you to point out to us please on that diagram the respects in which that child's heart was damaged or defective or deformed. I should ask you first, however, if, having looked at the chart, you recognize that diagram as a reasonably accurate representation of the deformities in the Bilodeau child's heart?

A. Yes, I do.

MR. LAMEK: I wonder, therefore, Mr. Chairman, if that chart might be the next exhibit.

THE COMMISSIONER: Yes, Exhibit 47.

---EXHIBIT NO. 47: The Chart of Baby Bilodeau's heart.

MR. LAMEK: Q. Now, Doctor, can you describe for us, please, with your pointer if necessary, the deformities, defects in the Bilodeau child's heart.

A. The malformation here is known as truncus arteriosus, and the essential component of the malformation is that there is only one large



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arterial channel leaving the heart.

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1 But instead of the pulmonary artery being attached
2 as it normally is to the right side of the heart,
3 the pulmonary artery is coming off the aorta, so it
4 is coming off a high-pressure structure.

5 In addition there is usually a
6 large ventricular septal defect, a large hole in the
7 wall separating the two pumping chambers.

8 In this particular baby there was
9 a strong suspicion arrived at by ultrasound examina-
10 tion that the truncal valve or the valve that was
11 the valve for both the aorta and the pulmonary artery
12 was obstructed.

13 The effects of this malformation
14 are that a huge amount of blood is delivered to the
15 lungs under high pressure because the lungs are a
16 little bit like a sponge and they will take anything
17 that is offered. But they quickly become, like a
18 sponge, waterlogged, so this huge torrent of blood
19 flowing to the lungs is picking up oxygen in its
20 proper way but comes back to the left side of the
21 heart which enlarges rapidly, and before very long
22 the stresses of pressure and volume-loading of that
23 pumping chamber become intolerable, and so the usual
24 course of a malformation like this is progressive
25 congestive failure with death unless there is some
intervention.



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Q. Doctor, just on looking at the diagram, am I correct too that the aorta arches to the right instead of to the left as in a normal heart, and is there any significance to that?

A. That is a fairly common association but it has no practical significance or disturbance of the circulation in any way.

Q. Now, doctor, in terms of the death of Baby Bilodeau, can you tell us, please, what in terms of the deformities or defects you have described or from the chart you regard as a significant information?

A. From the chart?

Q. Or by illustration from the diagram as well.

A. Well, I think the major thing is the clarification of the anatomy; that is the diagnosis was made by ultrasound.

The baby was in congestive heart failure, and it was exhibiting all the consequences of the upset in the hemodynamics that I have just mentioned, and that was what led to its admission to the hospital --

Q. Yes.

A. -- and the institution of treatment.



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So the major implication is the enormous amount of blood that has to go through the lungs. That is obligatory. There is no other way for it to go, and that creates a huge loading situation for a heart, even an abnormally formed heart.

Q. Doctor, there was no autopsy performed on this baby, was there?

A. No, there was no autopsy.

Q. And therefore such information as was available about this baby's condition was based purely, I take it, upon diagnostic techniques that were conducted during the baby's life?

A. That is correct.

Q. And the diagnosis of truncus arteriosus was made after the baby's admission to the hospital I understand?

A. Yes.

Q. By echocardiogram?

A. By echocardiography. The clinical suspicion at the beginning was directed fairly early towards that diagnosis, and the echocardiogram is usually conclusive.

Q. Had it not been proposed to do a cardiac catheterization on this child?

A. Yes. It was proposed that that be done I understand on the day after the echo-



c4 1 cardiogram was obtained.

2 The initial therapy was directed
3 towards the treatment of the heart failure which was
4 the urgent problem, and then the secondary problem
5 was a specific diagnosis so that some decisions might
6 be made about the question of surgical intervention.

7 Q. Right. In proposing
8 cardiac catheterization of the baby, was the purpose
9 to confirm the diagnosis of truncus?

10 A. Not to confirm the diagnosis
11 of truncus but to clarify details that might not be
12 evident in relation to the size of arteries and where
13 they came off the trunk and so on.

14 Q. Were you satisfied after the
15 echocardiogram that truncus arteriosis was the
16 correct diagnosis?

17 A. That seems to be clear.

18 Q. That diagnosis having been
19 made, and I gather with some confidence, what was
20 the prognosis for this child?

21 A. Well, the prognosis for
22 truncus arteriosis is very dismal in the first month
23 or two of life.

24 If one is fortunate to have a
25 particular combination of events with that malformation
that allows less blood to go through the heart, for



c5 1 one reason or another, then such infants may do quite
2 well for a year or so. But the vast majority
3 behave in the manner that this baby did and get into
4 difficulties very early, so that you are forced to
5 make decisions about surgical intervention at un-
6 fortunately an extremely young age.

6 Q. This child was four weeks old
7 as I understand?

8 A. Yes. And the mortality
9 for that varies from one centre to another but is
10 fairly much -- a very high figure for most centres.
11 I think there is only one centre in North America
12 that has anything approaching reasonable results
13 with this malformation, so it is a high risk surgical
14 intervention, but theoretically a correctible lesion
15 unless there is a very severe truncal valve abnormali-
16 ty.

16 Q. I take it from what you are
17 saying, doctor, that although events overtook you in
18 the sense that you were not able to do the - and when
19 I say "you" I mean you, the division of the hospital --

20 A. Yes.

21 Q. -- you were not able to do
22 the cardiac catheterization that was proposed. Never-
23 theless even with the diagnosis from echocardiogram
24 of truncus arteriosis the prospects for survival of
25



C6 1 Andrew Bilodeau were, can we put it any higher than
2 slim?

3 A. I wouldn't even put it that
4 high now.

5 Q. Why not now?

6 A. Because looking back over
7 that data I would think the chances of that baby
8 surviving catheterization would be probably quite
9 small.

10 Q. And you mean he might not
11 even survive the catheterization let alone the surgery?

12 A. Yes.

13 Q. And when you say now you
14 wouldn't even go as high as slim --

15 A. No.

16 Q. -- has your view of that
17 changed since the fall of 1980?

18 A. No, I think as the cardiac --
19 the cardiologists involved felt the same way at that
20 time. I am a little more familiar with every detail
21 now than I was then, but I think that was the opinion
22 of the responsible cardiologist, Dr. Vera Rose.

23 Q. Now, Dr. Rowe, you are
24 aware, are you not, that in the summer of 1982 Dr.
25 Bain, Dr. Harry Bain, reviewed the charts of the
children who died in the period from July 1980 to



C7 1 March 1981? You are aware of that?

2 A. Yes.

3 Q. And as I understand it,
4 Dr. Bain who will be giving evidence at a later date,
5 Dr. Bain had at that point in the summer of 1982
6 recently retired as the Chief of Pediatrics at the
7 Hospital?

8 A. Yes.

9 Q. And I take it you have read
10 his report - the report of his review?

11 A. Yes.

12 Q. I want to put before you a
13 copy of that report and ask if you recognize it as
14 the one that you read or a copy of the one you read,
15 doctor.

16 A. Yes, I do.

17 MR. LAMEK: Thank you.

18 We will be calling Dr. Bain later,
19 Mr. Chairman, but I do want to refer to it. Could
20 it be marked at this time as an exhibit, please?

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D/DM/ak

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2 ---EXHIBIT NO. 48: Report of Dr. Bain's Review.
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4 MR. LAMEK: Q. You don't by any
5 chance have a copy of that report with you, Doctor?

6 A. No, I don't.

7 Q. To the extent I am going to
8 refer to it, I will bring my copy up to you.

9 Dr. Rowe, on page of his report,
10 Dr. Bain starts, Section 3, which he calls "Group
11 1B of the Babies", and he says:

12 "Almost all of the babies he put into
13 that group could almost certainly be
14 excluded from any suspicion or question
15 on the clinical grounds, that is they
16 had serious medical problems for
17 a considerable risk of dying and
18 a word of explanation is required for
19 each of them for a variety of reasons."

20 And lower down on page 4 he has a
21 paragraph about Bilodeau, the baby we have just been
22 discussing and you have read that comment I take it?

23 A. Yes, I have.

24 Q. I am looking particularly at
25 the third sentence where Dr. Bain reports:

"He is placed in this category only
because he died a little sooner than



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"may have been expected, this is not
an unusual occurrence."

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Do you recall whether in the early
fall of 1980 it was felt that baby Bilodeau, not-
withstanding the diagnosis of truncus that had been
made, died a little sooner than may have been expected?

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A. I don't believe that that was
the opinion of the cardiologists involved, or the
Cardiac Fellows.

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Q. May I refer you to the
Bilodeau chart, Dr. Rowe, and it is page numbered 5,
in fact it is 00005, which I understand to be the report-
ing letter from Dr. Vera Rose to Dr. B. M. Patel
in Brantford, dated August 6th, 1980. Who is
Dr. Vera Rose, please?

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A. Dr. Vera Rose is a staff
Cardiologist in the Division of Cardiology.

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Q. Was she the Cardiologist to
whom this patient had been referred?

A. She was the Ward Chief at
the time the patient was admitted.

Q. And was Dr. Patel the referring
physician?

A. Yes. He referred the patient
to Dr. Fowler who is also a staff cardiologist, we



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are getting into that system that I was talking
about before.

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Q. The first paragraph of the
letter to the referring physician, Dr. Rose says:

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"I am enclosing the final summary
report on this little patient of
yours who died rather suddenly and
unexpectedly on the night of the
22nd of July, 1980."

Is not the use of the language
"suddenly and unexpectedly", Doctor, consistent
with Dr. Bain's note that it was thought at the
time that this baby had died a little sooner than
was expected?

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A. I agree that on the surface it
may look that way. But I draw your attention to
Dr. Rose's note on page 00035.

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Q. 35, yes?

A. In which she says, in a little
note at the bottom of that page:

"That the two dimensional echocardio-
gram showed truncus arteriosus with
probable truncal valve stenosis."

Q. Yes.

A. "Prognosis, poor, likely
inoperable."



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Q. I am not suggesting for a moment, Doctor, that anyone thought that baby Bilodeau's chances of surviving were good and that it was a surprise that he died. "Rather unexpectedly" when used in conjunction with "suddenly" suggests to me, and I invite your comment the thought that the fact that the baby died didn't surprise anybody, the fact that he died just when he did was a bit of a surprise.

A. The only way I can answer that, you would have to ask Dr. Vera Rose what her interpretation of those words are. I think we use those words in the hospital setting perhaps differently from the way they are used in this setting.

I think there is a popular misconception that we have the power to make a prediction of the precise moment when a baby with congenital heart disease would die, and I think that is really far from the truth. We are occasionally able to say that a baby might be progressing so steadily downhill that we can expect death in a moment, or an hour, or two hours, but most of the time that really is not possible. So that a sudden death would be fairly descriptive of what happened to that child, the



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baby died suddenly but it would not be, in my view,
an unexpected - unexpectedly sudden, because a baby
is very precarious in this situation, the heart
can fail at any moment completely.

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Q. Doctor, do you recall anything
in the chart other than perhaps the sentence in
Dr. Rose's reporting letter to which I have referred
you, which might have provided a basis for Dr. Bain's
comment that it was felt that the baby died a little
sooner than might have been expected?

11

12

A. Well, I haven't looked through
this chart specifically for that information.

13

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Q. Dr. Bain no doubt when he
gets here will tell us the basis upon which he made
that comment.

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Let me just go back for a moment
to what you have just said about the ability to
predict time of death, and I recognize that is not
a matter that you can ~~competently~~ ^{confidently} do with any degree
of close accuracy.

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Doctor, is it not fair that over the
course of many years' experience, seeing many
children with sicknesses of varying degrees of
progression, that a person in your position gets a
feel for the kind of life expectancy that a child



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may have. You are going to be wrong a lot of the time, I understand that. Don't you get some sort of a feel for how long a child may be expected to survive with a given condition?

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A. You get a feel all right, but you are wrong many times, and even when you get long in the tooth you are wrong. The first patient on your list in July is not mentioned in this conference, it was a baby with a malformation that usually ends in death within four or five days.

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Q. That is Perrault?

A. Yes, and that baby survived for approximately 27 days, and we expected death at any time. In fact we began to get worried when that baby had not actually died. So I think there are issues of that sort and there are other issues. We have seen babies who have been, who were apparently unsuspected of having congenital heart disease, who had been in the view of everybody who has looked after them perfectly well children who suddenly died. In the same sort of age group, one to two months and who will be found, to everybody's astonishment at autopsy as having a very severe congenital malformation of the heart. So we really haven't the precision that is implied in perhaps



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some of our writings, or in some of the popular
ideas on the subject.

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Q. Doctor, I appreciate that and
I think it is valuable to have this discussion at
the outset of the discussion of the charts, because
it is a matter that is going to arise I think over
and over again with these charts.

Interestingly your own language, if
I may say so, corroborates what I put to you. You
referred to the Perrault child and you said: "We
expected that child to die any day and he survived
far longer than we expected him to." I am suggesting
to you, Doctor, that on the basis of your experience
you do form an expectation as to the life expectancy
of a patient, do you not?

A. We make a rough estimate.

Q. Yes.

A. No more.

Q. And it may be Dr. Rose, and
I suppose you are right, we will have to ask her,
is saying no more in the opening sentence of her
reporting letter that this death was sudden and
also fell within a shorter time frame than her
tacit rough estimate had been. Is that a fair
reading of that?



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A. I can't answer that, you will

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have to ask her.

4

Q. Certainly there had been a

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plan had there not to proceed further with this

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child. He was going to have a cardiac catheterization

7

to consider the possibility of surgery?

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A. Yes.

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Q. And that was not being done

10

on any emergency or rush basis, was it, those were
elective procedures?

11

A. Well, it was a semi-urgent

12

consideration, it wasn't elective, it was a matter

13

I would judge from what I see of attempting to

14

stabilize the baby's condition.

15

Q. Yes.

16

A. And unquestionably the

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baby's condition deteriorated, the failure became

18

worse, the respiratory difficulty became obvious,

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gallop rhythm developed which is a sign of bad

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failure. I would read from the chart notes in that

21

sense that this baby was deteriorating. So from

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my examination of that I would not feel that was

23

an indication that we had a stable baby who could be

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expected to survive even a couple of days. I would

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be very worried about whether that sort of baby might



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go at any time.

Q. One thing in the chart that does puzzle me, Doctor, and perhaps you can help me with it. I have referred you to page 5 in the reporting letter of Dr. Rose, could I refer to another part of that letter. It is the penultimate sentence in the second, the long paragraph:

"There was some difficulty in reaching the parents the night the baby died and we were not able to inform them that the child was deteriorating rapidly."

Q. I ask you to turn to page 20 of the chart which is the Death Report. I ask you please to look at the final paragraph of that report which reads, for the sake of those who do not have it:

"The patient was managed satisfactorily over the weekend of his admission with continuation of digoxin aldactazide, on the morning of 21.7.80 two dimensional echocardiogram was performed which showed the diagnosis of truncus arteriosis and obviously severe congenital heart lesion. On



1
2 "the afternoon and evening of that
3 day the baby gradually deteriorated
4 with increasing severe congestive
5 cardiac failure characterized by the
6 presence of many pulmonary crepitations,
7 tachycardia, tachypnea but little
8 hepatomegaly. This was managed
9 medically with oral and intravenous
10 digoxin and large doses of intra-
11 muscular and intravenous lasix and
12 oxygen with strict fluid restriction.
13 Despite these measures the baby
14 gradually deteriorated until he
15 sustained a cardio respiratory arrest
16 at 1:30 a.m. on the 22nd of July,
17 which after vigorous attempts at
18 resuscitation for half an hour he
19 failed to recover."

18 Now as I read that the pattern that
19 is described is one of gradual deterioration right
20 down to the moment of arrest.

21 A. Yes.

22 Q. I refer to Dr. Rose's report
23 which refers to "rapid deterioration". On the face
24 of it there appears, to a layman at least, Doctor,
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to be an inconsistency, are you able to help me with the reconciliation if indeed there be an inconsistency?

A. I think that is just a different interpretation of the moment that is put on it. But I think again you would have to come back to ask Dr. Rose her views on the words that she used there in relation to "suddenly" and "unexpectedly".

Q. Do you from such review of this chart as you have conducted have a view as to the appropriate characterization of the rate of deterioration of this baby, was it rapid or was it gradual?

A. I think it was rapid during the period of the last day.

Q. The last day.

A. The last day, but not as far as I can judge anything more than a steady deterioration during that time. But, you know, I was not on the ward.

Q. I understand.

A. And didn't see the baby and I think that those specific questions would have to be addressed. Even then looking at this information



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I am not disturbed because I know how people use these terms fairly loosely in the context of a letter to a physician or in a context of the night, in the chart.

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Q. Doctor, since what we have to be engaged upon here is a review of charts and the eliciting of evidence from people who have reviewed charts, ^{we} ~~we~~ have got to know the limits that you think, ~~of~~ the restrictions that you think should be placed upon opinions formed just upon the review of the chart.



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Are you suggesting that in order to form a valid conclusion or to characterize properly the patient's condition and progress, rate of deterioration and so on, one has to have seen the child?

A. Seen the child, yes I think that's true. I think you can get a good distance of course with chart review, because that's the way most things are done.

Q. Of course.

A. But in fact in individual cases, I think the only certain way is to have the recollection of the individual cardiologist or group that were involved in the care of the baby.

Q. Is that because there may be things in his observation which may not appear in the chart?

A. I think that's true of hospital charts generally.

Q. Yes.

A. The chart does not always reflect the detail of the infant's condition. I mean, it will reflect the general sense of the condition of course, but not every moment to moment visit. That baby was probably visited a dozen times by people in

Presumably because inter alia, a
lay individual reads non-medical
words like "suddenly" and "unex-
pectedly" as meaning what they
plainly say!



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its declining hours and they wouldn't have written
a note every minute of the time.

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Q. And I take it from what you
have told me so far about this chart, Doctor, another
of the difficulties with chart review is that it
may not always be clear to the reader just what
was meant by the language used by the writer?

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A. Yes, I think that's true,
especially if the person making the review is a lay
individual.

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Q. Yes. Do you recall what if
any discussion there was in the Bilodeau case at
the meeting on September 5, other than as is recorded
in the minutes, and perhaps the handwritten notes
may be of assistance to you.

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A. I think this baby is a good
example of the reason for holding the conference
in that as the nurses and physicians deal with
this problem of a very sick infant, their concen-
tration is on the treatment and the management of
the congestive failure and the question of the
prognosis from surgery or anything else is not
uppermost in their minds, they are trying to get
this baby through in some way or another.

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So, I think that it would be inevitable

ouch!



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that some nurses might feel that that baby, there were things that might have been done with that baby that might have saved the baby. I think we have to accept that nothing we would have done for that baby could have saved him.

But the points that were discussed and I think are appropriate for discussion, were that, would it have been better if this baby had been transferred to the Intensive Care Unit when it started to deteriorate, would that have made a difference, would we have got any further distance if we had done that.

There was obviously a discussion, as I see it in the written minutes, by Mrs. Radojewsky that there was a discussion presumably from the physicians that these were emergency problems in a way, they go, as it says here, sour very quickly, and I think the nurses raised the question of whether it might have been better to do the echocardiogram at an earlier stage and so on.

I think the points that are raised are all reasonable points to raise about babies who are critically ill, but I don't think that anything that would have been done for this baby in retrospect and looking at the whole picture would



1
2 have perhaps done anything further for the infant.

3 Nevertheless, it was thought there
4 that perhaps monitoring of a more intense nature
5 and perhaps earlier transfer to the ICU would be
6 good considerations in future infants with similar
7 sorts of disease.

8 Q. Doctor, I am looking at the
9 second page of the manuscript notes in the lower
10 part of the page and there is a note, I confess it
11 to be not terribly legible, on the lower right hand
12 side. This baby was on lasix, was he not?

13 A. Yes.

14 Q. Yes. And that is a diurectic?

15 A. That is a diurectic.

16 Q. And prescribed as one of the
17 drugs in the treatment of congestive heart failure?

18 A. Yes.

19 Q. The notation appears to be,
20 if I read it right, that at 2200 hours, that is to
21 say, if I can work on a 24 hour clock, 10:00 p.m.,
22 good urinary output. Is that of any significance in
23 charting the progress of this baby on the evening
24 that it died?

25 A. It would suggest that the
diurectic is working.



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Q. Yes. And then there is a note

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below that, below the gas pH, "ICU notified". Do

4

you have any recollection of anything in the chart

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to that effect because I tell you, Doctor, I have

6

been unable to find it.

7

A. No, I can't find anything

8

in the chart about that and I have looked at that

9

question.

10

Q. And had the ICU been notified,

11

you would have expected something in the chart, would

12

you not?

13

A. Not necessarily. Well, you

14

would expect it I think, but I think that most of

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that is done on a verbal basis and the question of

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whether something is written down would probably

17

be determined only by the transfer of the patient.

18

Q. But the fact that the ICU

19

was notified would be an indicator of something

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that should perhaps be written down, shouldn't it,

21

a concern that this baby was getting into trouble.

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That's the reason for getting in touch with the

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ICU, isn't it?

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A. Yes.

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Q. And therefore one should expect

to see in the chart indications that at some time



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before the arrest, this baby was getting into trouble to the extent that someone, although perhaps he didn't record it, got in touch with the ICU about transferring the baby?

A. Yes.

Q. Doctor, as I look at, for example, page 24 of the chart, Doctor, the progress notes, nursing notes, made in this case by Nurse Nelles, for the period from 7:00 p.m. until one o'clock, in the morning, indicate laboured breathing, vomiting at 9 o'clock of feed and the medications, starting of an IV, vital signs, apex ranging from 140 to 186 and regular. Was there anything in the period for which that note is made which is so significant that it changed from the baby's previous condition, that is to suggest, that it was getting into trouble and should have been moving out to the ICU?

A. I think the only note there would be the respirations were laboured and grunting and that can be interpreted in a number of different ways but you know, I don't see any note to suggest a huge alarm there.

Q. Now, certainly I as a layman had that impression from the note covering that



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2 period, and it is not really until the note recorded
3 at 1:25 that there is any indication that this child
4 is really in serious trouble, is there, because
5 at 1:25 the apex pulse has dropped now to a rate
6 of 60 to 70 and it is dropping further.

7 A. Yes.

8 Q. And now there is a respiratory
9 distress, two minutes later a Code 25 is called,
10 the apex continues to drop and at 1:30 resuscitation
attempts start and they are unsuccessful.

11 Now, forgive me, Doctor, but I think
12 by almost any definition you would regard that as
13 a sudden onset of terminal events, would you not?

14 A. Yes, but I think that would
15 not surprise me at all.

16 Q. Okay. My question therefore
17 is, Doctor, were you at the time this chart was
18 considered for and at the meeting of September 5,
19 1980, satisfied that the death of Andrew Bilodeau
20 on July 22 was adequately explained by his cardiac
condition as revealed in the chart?

21 A. Yes.

22 Q. And were you aware of any
23 different view held by any cardiologist at the
24 Hospital who was involved in the discussions?
25



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A. No, I'm not.

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Q. Okay. Perhaps then we can move to the second of the deaths that were considered at this meeting, that of Philip Turner.

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Doctor, once again we have a diagram which is said to represent the heart of Philip Turner. Have you satisfied yourself by a review of the chart that that diagram accurately represents the problems and deformations the Turner baby's heart has?

11

A. I believe it does.

12

MR. LAMEK: May that, Mr. Commissioner, be the next exhibit, please.

13

14

THE COMMISSIONER: Exhibit 49.

15

---EXHIBIT NO. 49: Chart of Baby Turner's heart.

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17

MR. LAMEK: Q. Now, Doctor, can you, once again, do your demonstration as to the defects and deformities that are manifested in that heart.

18

19

A. This baby has a combination of defects which are loosely described as a hypoplastic left heart syndrome.

20

21

Q. I'm sorry?

22

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A. Hypoplastic, h-y-p-o-p-l-a-s-t-i-c left heart syndrome. By that, it is meant a spectrum of abnormalities of the heart that results in a

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2 degree of smallness of the left sided chambers and
3 of the great artery that leaves the left side, the
4 aorta.

5 The condition is usually associated
6 with the coarctation of the aorta, and that is
7 demonstrated up here. It is the appearance of the
8 aorta at that point as though it has been tied with
9 a piece of string. So, it is a narrowing of the
10 aorta.

11 There is usually an abnormality of
12 the aortic valve. In this case it was a bicuspid
13 or 2 leaflet instead of 3 leaflet valve. In
14 addition, there is commonly, as there was with
15 this baby, subaortic, meaning just underneath the
16 aortic valve, obstruction or stenosis, and there
17 was a large fibro-muscular subaortic obstruction
18 in that position.

19 So that in this particular baby there
20 was an obstruction to blood flowing out of the left
21 heart passed this subaortic obstruction, some
22 obstruction at the aortic valve and further
23 obstruction in the coarctation ~~site~~ ^{site} ~~right~~.

24 In addition, there were multiple septal
25 defects between the pumping chambers, ventricular
26 septal defects, and the whole of the aortic arch was
27 small.



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Q. Dr. Rowe, again it may be of
very minor significance, but the diagram appears to
show the ductus arteriosus still open.

A. Yes. That is commonly the
case, especially in very young babies. That is
really the channel that should, you may recall,
shut off in the first 48 hours, but in fact remains
open in many babies with congenital heart defects for
a longer period of time. And to some extent its
continued patency may ameliorate the malformation
effects. But when it inevitably starts to close,
the consequences are brought to bear rather rapidly.

So the right side of the heart is
usually anatomically intact except for the holes
that are appearing through the wall in the middle,
and the principal combination of lesions affects the
left side function.

The consequence of that is very
severe heart failure usually.

THE COMMISSIONER: Very severe what?

THE WITNESS: Very severe heart
failure; the pump fails to perform effectively.

MR. LAMEK: Q. Now there was an
autopsy on this child, was there not, doctor?

A. There was an autopsy on this
child at the Hospital.



Rowe
dr.ex. (Lamek)

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Q. Can you tell us, please,

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were all of the defects which you have pointed out

3

to us on the diagram known or suspected before

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autopsy, or were any of them not revealed until

5

autopsy?

6

A. I think there may have been

7

found at autopsy of mitral valve obstruction as well,

8

which is here (indicating), but I think the rest of

9

the malformations were recognized.

10

Q. Now, doctor, in terms of

11

not only the fact but the time and manner of the

12

death of Phillip Turner, will you tell us, please,

13

what in your opinion at the time you looked at this

14

child and discussed it in the fall of 1980, what

15

were the significant anatomical problems?

16

A. Well, the significant problem

17

is this complete abnormality of a whole series of

18

areas of the left heart and the aorta. This is a

19

rather large category of different malformations that

20

can be included in the diagnosis of hypoplastic left

21

heart syndrome, but it fits that group in our view

22

quite well, so that that was the problem.

23

The series of obstructions and the

24

combination with ventricular defects is a big problem.

25

The only surgically approachable

part of this was the coarctation of the aorta, and a



F3 1 method to try and reduce the effects on the heart of
2 these multiple septal defects.

3 Q. The child had had surgery
4 in the course of ~~this~~ admission to the Sick Children's
5 Hospital, had he not?

6 A. He did.

7 Q. He had been to the operating
8 room on July 19th.

9 A. Yes.

10 Q. Can you help us, please, what
11 was the nature of the surgery that he had undergone
12 at that time?

13 A. Well, at that time he was
14 receiving a medication which tends to keep the ductus
15 arteriosus open.

16 That is a standard nowadays of
17 trying to improve or lessen the degree of obstruction
18 in the aorta, in a coarctation, because if this
19 channel is widened appreciably by drugs, then it means
20 that blood can bypass that obstruction by taking a
21 little bit of a detour into the mouth of that ductus,
22 and so in fact the obstruction is not so severe.

23 So babies can be taken to surgery
24 in better condition than otherwise has been the case,
25 so that that would have been -- that was what was done
here, and then the surgeon performed a repair of the



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obstruction and then ^{ligated}~~divided~~ the ductus.

In addition he placed a circular band of material, of plastic material around the main pulmonary artery, which is here (indicating), in effect creating an obstruction. Just like a string around the aorta he put a piece of string around the pulmonary artery.

The purpose of that is to prevent this huge amount of blood that would be pouring through those defects going out to the sponge in the lung, so that the band on the pulmonary artery tends to create resistance for blood to go out there. Not all of it, of course, but allowing considerably less than would have been the case prior to the application of the band. And that means then that the amount of blood going through those defects would be reduced to a relatively small amount. Hopefully.

This obstruction would be relieved, and then one would be left with the problem of the undersized left side, about which nothing can be done.

Q. I am interested in that comment, doctor, "about which nothing can be done".

A. Yes.

Q. What is the prognosis for a child who had a coarctation repaired surgically, who has an undersized left side of his heart?



F5 1 A. That depends upon the precise
2 size or the degree of underdevelopment, and there is
3 obviously a group of patients where you can predict
4 with considerable accuracy ahead of time that they
5 will not be able to tolerate the surgery, and it would
6 be a waste of time to proceed.

7 There are others where the left
8 side is of normal size or just a little under, where
9 the question is uncertain as to what their prognosis
10 will be, but at least they have a fighting chance
11 that this could perhaps develop a little as they
12 perhaps continued. And this baby I think to some
13 degree fitted into a category that was intermediate
14 between these extremes - between the extreme.

15 Q. May we take it at least that
16 it wasn't clearly a waste of time to perform the
17 surgery?

18 A. No, we didn't think that I
19 don't think.

20 Q. No. It was not considered
21 a waste of time anyway?

22 A. No.

23 Q. And indeed at page 5 of the
24 chart there is what I call an intermediate reporting
25 letter written by Dr. Schaffer for Dr. Olley, dated
July 25, 1980. That is to say six days after the

So much for Schaffu!



F6

1 surgery. It traces the course of the child from the
2 time of his admission and refers to the cardiac
3 catheterization that was done, and at the end of
4 the long first paragraph:

5 "The child was then returned to the
6 Ward where he was supported overnight
7 and as you know underwent surgical
8 repair the following morning.

9 Thank you again for allowing
10 us to help with the continued care
11 and evaluation of this child.

12 Presently the child looks good in the
13 Intensive Care Unit and we are hoping
14 for a pleasant satisfactory result."

15 Apparently hope had not yet been
16 given up on Phillip Turner as of the 25th of July.

17 A. Yes.

18 Q. Is that fair?

19 A. I think you will find varying
20 expressions of hope.

21 Q. Yes.

22 A. From different members of
23 the group depending upon their experience I would
24 suspect, but I think that is a fair statement.

25 Q. He went into surgery on
July 19th for a repair of the coarctation, and he then



F7 1 went to the ICU, which I take it is the normal course
2 from surgery to ICU?

3 A. Yes.

4 Q. And he stayed in the Intensive
5 Care Unit rather a long time, as I recall it, did he
6 not, doctor?

7 A. Yes, he had some problems in
8 the ICU.

9 Q. Okay. Can you help us with
10 what they were? I think at pages 46 and following
11 we have got the progress notes from the ICU and I
12 wonder if those would be of any help or should we
13 be looking somewhere else?

14 A. Well, that is the only place
15 that you can look here I think as to what is written
16 there. The main problem I think that is expressed
17 there is that he had some difficulties with collapse
18 of parts of the lung.

19 Q. Yes.

20 A. Not an unexpected matter in
21 babies who have got severe malformations of this sort.

22 Q. Indeed he stayed in the ICU
23 for what, eleven days? From the 19th --

24 A. To the 30th.

25 Q. To the 30th?

A. Yes. And he had some -- I



F8

1 gather that he had some problems with an infection;
2 gastroenteritis.

3 Q. It does appear, does it not,
4 that on July 30th he was returned to the Ward?

5 A. Yes.

6 Q. Does that suggest that he
7 was not as of that date at least regarded as being
8 at immediate or imminent risk of death?

9 A. I would think that is a fair
10 statement. They certainly wouldn't have transferred
11 him if they thought he was going to die suddenly the
12 next moment.

13 Q. No, of course not. Indeed
14 if one looks at the death report - I am sorry, the
15 final autopsy report, which begins at page 9 of the
16 chart, then goes to the history on page 11 one reads
17 in the second paragraph, halfway through:

18 On the 19th of July cardiac surgery
19 including a pericardial patch
20 arterioplasty of the arch and
21 coarctation with a ligation of the
22 patent ductus arteriosus and pul-
23 monary artery banding was undertaken.
24 The child was returned to the Inten-
25 sive Care Unit where the post-
operative course was characterized



F9

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by a persistent 'white-out' of the
left lung.

The underlying pulmonary
process was thought to be atelectasis."
That is collapse, isn't it?

A. Collapse, yes.

Q. "Pneumonia was also considered
in the differential diagnoses and
the child was treated with anti-
biotics. He improved clinically and
was transferred to the General Ward
on the 30th of July. The chest
X-ray at that time continued to show
left-sided opacification. On the
following day the child's temperature
was noted to be decreasing and on the
1st of August the baby suffered a
cardiac arrest and died."

At the time he was transferred, it
seems to have been that he was improving; he had
improved sufficiently at least to the point where he
could be sent from the ICU back to the Ward.

Now once again I ask you to refer to
Dr. Bain's report because he refers again to this
child. And I will bring it to you.

On page 7 of Dr. Bain's report he



F10

1 says the only reason that he is commenting on Turner's
2 place in this category is because he had unexplained
3 seizures, and I wondered if something had been missed
4 in diagnosis.

5 "After surgery improved slowly
6 but some episodes of arrhythmic."

7
8 Do you attach any significance to
9 the seizures and do you regard them as unexplained?

10 A. No. I think Dr. Bain's
11 explanation is likely to be more accurate than mine.

12 Q. Which was what?

13 A. That it wasn't unexplained;
14 that it was on the basis of acidosis.

15 THE COMMISSIONER: I'm sorry, I
16 missed that.

17 THE WITNESS: I think he said - I
18 don't have it but I think he says that there was
19 acidosis. Is that not right?

20 MR. LAMEK: Q. What he said was:
21 "...he had unexplained seizures and
22 I wondered if something had been
23 missed in diagnosis. However he
24 was quite acidotic at the time of
25 his seizure."



M/ak

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A. Yes, I am not quite sure to which point he is referring there, but I would certainly bow to Dr. Bain's opinion on what was causing the seizures.

Q. Could we follow what happened to this child after his return to the ward, Doctor? I think the nursing notes there at least are to be found at page 51, I'm sorry, it may be 52, 52 he is transferred. He comes back on the 30th of July so we begin at page 50 I guess: "Received ICU at 1400 hours..." at the bottom of page 50.

A. Yes.

Q. Could we just take a glance over a couple of pages of nursing notes until we come to the arrest note on page 52. Is there anything in that course, Dr. Rowe, that would lead you to think that that child from the time he returned to the ward was at imminent risk of death?

A. Well, he - certainly there is one noteable thing, the problem that he had in the Intensive Care Unit obviously recurred, the chest x-ray on the day, on the 31st of July.

Q. Yes.

A. Showed a complete, what they call a complete whiteout, which means that the whole



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2

of the left lung was collapsed and he was having
some distress from that as far as I can see.

3

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So I would think that the problem
that they had been having in the ICU was not
resolved and that could be quite serious on the ward,
because at least in the Intensive Care Unit they
can, they have the capability of dealing with that
situation much better than they would on the ward.

Q. But was that not still the
situation with this child at the time he came from
the ICU?

12

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A. He had some atelectasis but
I don't believe + I think if he had had the whole
left lung collapsed they wouldn't have sent him up,
so that probably happened after he came.

16

17

18

Q. Well at page 48 at the foot
of the thing, in the ICU transfer note of July the
30th, do I read at the bottom of the page: "Since
then..." this is to say since the surgery:

19

20

"...left lung has been wet, collapsed
despite ventilation and physiotherapy."

21

22

It does suggest a continuing state of
affairs, doesn't it, Doctor, to the point of the
transfer from the ICU?

23

24

25

A. Certainly they hadn't got it



1
2 resolved completely when the baby left the ICU,
3 but I think as I read that it looks as though it
4 worsened.

5 Q. There does not seem to be
6 a suggestion from July the 30th, after he was
7 returned to the ward, or on July 31, that he should
8 have been returned to the ICU, or I don't see one.

9 A. No. I say again I doubt
10 that you will see any note to that effect.

11 Q. The note you were looking
12 at I think is at the top of page 51, is it, Doctor?

13 A. Yes.

14 Q. The on-service note of July
15 31?

16 A. Yes.

17 Q. And I think signed by
18 Dr. Wilkins is that who was a resident I believe?

19 A. I can't interpret the signature.

20 Q. Now, on page 52 at the top
21 of the page, 2:30 a.m. on August the 1st the arrest
22 note signed by Dr. Izukawa, who is he? He is not
23 so described as doctor but that was a doctor, was he
24 not?

25 A. Dr. Izukawa is a staff
Cardiologist and presumably he was the Cardiologist



1
2 on duty at the time of death.

3 Q. Right. The notice isn't
4 terribly easy to read and I hope I have it right:

5 "Arrested at 1:30 a.m. Concern through-
6 afternoon and night but physical exam
7 and blood gases did not give rise
8 to major crisis. Chest x-ray did
9 indicate some atelectasis and
10 femoral pulses were difficult to feel
11 because of cutdowns but cardiac status
12 appeared controlled. 45 minute attempt
to resuscitate failed."

13 "Cardiac status appeared controlled."

14 Obviously there was some concern in watching this
15 child through the afternoon and night, but the
16 immediately preceding observations to that arrest
17 appear, do they not, at the foot of the page, Doctor,
18 the note of Nurse Nelles, August 1, 1980 at 1:25
in the morning:

19 "While observing child apex noted to
20 be falling. Monitor alarm sounded.
21 apical rate less than 40 and irregular.
22 Babe became cyanotic, respirations
23 ceased, Code 25 called and cardio
24 pulmonary resuscitation initiated..."
25



1
2 And then refers to the physician's notes for further
3 intervention. Pronounced dead by Dr. Izakawa at
4 2:15 a.m.

5 Does that appear, Doctor, to have
6 been a sudden onset of the terminal events, the
7 critical symptoms?

8 A. Yes.

9 Q. I am interested, Doctor, that
10 on page 52 of the chart, the first note on the
11 page is the arrest note of Dr. Izukawa at 2:30 in
12 the morning. It is followed by Nurse Nelles' progress
13 note covering the period from 7:30 in the evening
14 of July 31st until 1 o'clock in the morning of
15 August 1. I would have thought in the normal course
16 that charting was done in a chronological way, is
17 that so?

18 A. Not so.

19 Q. Not so?

20 A. No, not so because so many
21 people have to write on the chart that it depends
22 who gets there first as to writes their section.

23 Q. That is my point. Susan Nelles
24 was apparently referring to the period that ^{had} ~~would be~~ ^{been}
25 ~~done~~ at 7:30 in the evening before and had been taking
vital signs and so on throughout the period, had she not?

A. Yes, I presume so.



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Q. Would it not be normal practice for her to do her charting as she went along?

A. I can't answer that question, but I can tell you that there are many instances of charts that I have seen on that ward where the charting is out of phase by a small amount.

Q. I am not suggesting for a moment there is anything wrong or sinister, quite the contrary, Doctor.

A. No, I understand.

Q. What I am suggesting to you is this. As I understand it the hospital's charting, at least for nursing records is what is called a POMR system, isn't it?

A. You will have to ask the nurses, I am not familiar with everything that nurses have in the way of ---

Q. Have you never wondered what those letters mean at the bottom of the progress notes in the charts, Doctor, POMR? It doesn't appear on a lot of these copies but I am sure you will see them often. As I understand it it means "Problem Oriented and Medical Records" or "Recording", something of that sort.

So much for nurses!



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A. Yes.

3

Q. As I understand it, and

4

perhaps you can tell me if it is your understanding

5

too, the orientation of the charting or the recording,

6

at least for the nurses, is that they not only record

7

routine things but anything that appears to be

8

problematic about that child?

9

A. Yes, they certainly write

large notes.

10

Q. Does the fact that Nurse Nelles

11

who was an experienced nurse I think, was she not?

12

A. Yes, indeed.

13

Q. Does the fact that Nurse Nelles

14

had not, prior to 2:30 in the morning, recorded any

15

observation that she had made, or vital signs that

16

she had taken since 7:30 in the evening before,

17

suggest that in her experienced nurse's view there

18

was no particular problem to record in that period?

19

A. I would not regard it as

such an implication but you would have to ask the

20

nurse, the Head Nurse I think to identify what was

21

the custom of nurses in terms of doing that.

22

Q. All right. Indeed, when you

23

do look at the note that she wrote, apparently some

24

time after 2:30 covering the period from 7:30 the

25



1
2 evening of July 31 to 1 o'clock in the morning,
3 there is as I read it, and perhaps you can help me,
4 Doctor, there is only one matter of any particular
5 concern there, is there not: "Difficulty maintaining
6 temperature, apex is stable and regular,
7 respirations...", there don't seem to be any
8 particular changes there.

9 A. The difficulty in maintain
10 temperature in itself is an important issue and it
11 would be an indication of instability of the patient.

12 Q. Is it something that should
13 have been brought to the attention of somebody, some
14 doctor, before 1 o'clock in the morning?

15 A. Possibly. It may have been,
16 I don't know, I can't see any record there that it
17 was but it might have been.

18 Q. Certainly from the nature of
19 the note that the nurse put at the foot of the page
20 recording the terminal events, it appears that the
21 onset of those terminal events was ~~such~~ ^{sudden}, does it not?

22 A. Yes.

23 MR. LAMEK: Would this be a convenient
24 time for the morning break?

25 THE COMMISSIONER: Yes, 15 minutes.

---Short recess.



BB/ak

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---Upon resuming.

THE COMMISSIONER: Mr. Lamek?

MR. LAMEK: Thank you,
Mr. Commissioner.

Q. Dr. Rowe, we just agreed I
think that the onset in the course of the terminal
events in the case of baby Taylor that are disclosed
in the chart could reasonably be described as sudden.

MR. ORTVED: Turner.

MR. LAMEK: Turner. I'm sorry,
didn't I say that?

Q. Is that the manner of onset
and course of terminal events that you would expect
to see in a child with the anatomy and history of
Philip Turner?

A. I think that's quite possible.

Q. You say quite possible?

A. Yes. They may be, you know,
it may be slower or it may be just as fast. I would
emphasize again, this baby, although said to have
been quite "stable," is in no sense a well
state.

Q. Yes.

A. And I think that in that degree
of complexity of malformation, that degree of



1
2 fragility, as it were of the infant, that there would
3 not have to be much further alteration in the baby's
4 status, much further stress, perhaps more a change
5 in the atelectasis or collapse of the lung or some-
6 thing of that sort to tip matters very quickly in
7 the terminal direction.

8 I think that is one of the difficulties
9 about making projections about the outcome in this
10 group of babies.

11 Q. I understand. But it may be
12 that we are at cross purposes in the question and
13 answer. I think I asked you if that was the manner
14 of onset and course of terminal events that you would
15 expect to see in a child with the anatomy and history
16 of Philip Turner and you said it was quite possible.

17 A. Well, because not every ---

18 Q. Well, forgive me, Doctor, and
19 I suggest to you there may be a difference between
20 saying, well, that's possible, and it doesn't greatly
21 surprise me to see it, and saying, well, sure it's
22 possible, but it is not what I expected to see.

23 A. Ah, yes. Well, I would say
24 that's quite within the bounds of what I would expect
25 to see.

Q. Is that pattern of the onset



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2

and rapid course of terminal events and those
particular terminal events also possibly consistent
with digoxin intoxication?

4

5

A. Yes.

6

Q. Now, this baby had been on
digoxin, had he not?

7

A. Yes, he had.

8

9

Q. And I'm a little puzzled by
the doctor's orders with respect to digoxin,
particularly while he was in the ICU. Could we
look please beginning at page 110 of the chart. This
is the section of the chart containing the doctor's
orders, is it not, Dr. Rowe?

10

11

12

13

14

A. Yes.

15

16

Q. And the bottom quarter or
third of the page under date 22/7 - July 22 at 11:45
"May give digoxin at 2400 hours".

17

A. Yes.

18

Q. Is that the same as midnight?

19

A. I expect so.

20

Q. 2400 or 0000?

21

A. 0000, correct, yes.

22

Q. All right. And then on the

23

23rd of July, the notes for which begin at the foot
of page 110 and are continued on page 111, there is

24

25



1
2 the order of "hold digoxin".

3 On the 24th, a little over half way
4 down the page, the further order "hold digoxin".

5 On page 112 on the 25th "give one
6 dose of digoxin today, do serum digoxin tonight".

7 A. Yes.

8 Q. On the 26th on page 113
9 "hold two doses of digoxin and then reassess".

10 On the top of the page 114 under the
11 date which unhappily is obscured by the binding
12 in my copy but I believe to be the 27th "digoxin .005
13 milligrams IV twice a day restart".

14 MR. SCOTT: I'm sorry, where is
15 that, I don't follow you?

16 MR. LAMEK: Top of page 114.

17 MR. SCOTT: Thank you.

18 MR. LAMEK: Q. And then the order
19 again on the 28th "give digoxin ~~BDPO~~ twice a day
20 orally .005 milligrams".

21 On the 30th, the day he was returned
22 to the ward, on page 115 "hold digoxin".

23 Throughout that last week in the
24 Intensive Care Unit this baby seems to have been on
25 and off and on and off digoxin. Are you able to
explain that pattern of administration of digoxin to



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me, Doctor?

A. Well, obviously because I wasn't involved in that baby I don't know precisely what went on, I can only make a comment in relation to what that might mean.

Q. Yes.

A. There is comment, I'm not sure exactly on what page, about the fact that there was occasional nodal rhythm several times. I can't recall, I think one would have to go back through the chart in detail about that, but it was somewhere around the 23rd of July.

Well, one of the notes on the 25th says, under Cardiac, it is at the foot of page 43.

Q. 43, yes.

A. And it says "Vital signs generally stable except during physio".

Q. Yes.

A. Meaning during physiotherapy.

Q. Yes.

A. "While tipped head down, the heart rhythm changed to AV dissociation".

Q. Yes.

A. The heart rhythm reverted to sinus rhythm and blood pressure rose. I'm not sure



1
2 how long afterwards. It had only one episode of
3 that and it says "Digoxin was on hold because of
4 potassium instability".

5 Q. Yes.

6 A. So, there may have been a
7 number of factors that would influence the decision
8 to withhold digoxin. One of them might be irregularity
9 of the heart until they had checked out the
10 digoxin level in case there was toxicity, and the
11 second might be that the potassium or the electro-
lites of the blood might be disturbed in some way.

12 Q. Yes.

13 A. That is not uncommonly the
14 case during that period of the baby's course in
15 hospital.

16 Q. In the cardiac note that you
17 read, Doctor, on page 43, heart rhythm changed to
18 AV dissociation. Is AV dissociation heart block?

19 A. It is a form of heart block.

20 Q. Which is one of the known
21 symptoms of digoxin intoxication?

22 A. Yes.

23 Q. Well, certainly levels were
24 taken because higher upon that page, on page 43 under
25 date of 24/7/80, the note is, half way through that



1

2

note "Awaiting digoxin level today, digoxin withheld".

3

Now, in fact, on page 128 of the chart, digoxin

4

level was reported as of the 24th of July as being

5

1.6 nanograms per millilitre. Do you regard that

6

as a level that was cause for concern?

7

A. No. On the other hand, if I

8

may just add that on that particular time, the

9

potassium level is on the lowish side of normal and

that may have been part of the concern.

10

Q. Yes. Well, in fact, if we

11

go back to the doctor's orders on page 112 the

12

following day, digoxin having been withheld on the

13

24th, the order is "Give one dose of digoxin today,

14

do serum digoxin tonight".

15

A. Yes.

16

Q. So, they are monitoring this

pretty closely?

17

A. Yes.

18

Q. Page 129 of the chart, the

19

digoxin level recorded on the date of 28 July, 1980

20

was 0.5.

21

A. Yes.

22

Q. Again, I take it that is

not a level that would cause you any concern.

23

A. That's on page...?

24

Q. Page 129, Doctor.

25



I
ET/cr

- 1 A. No, that is not a level that
2 would cause you any concern.
- 3 Q. And on page 31 there is a
4 further digoxin level recorded for July 31, the
5 day after the child was returned to the ward, of
6 0.9.
- 7 A. Yes.
- 8 Q. And again I take it that is
9 not a level that would cause you any concern?
- 10 A. No. That is of interest
11 because the digoxin levels have been within normal
12 range but you still have irregularity of heart action.
- 13 Q. Would that be a function of
14 the on and off administration that had been taking
15 place?
- 16 A. No. I think that must therefore
17 be related to hemodynamic factors.
- 18 Q. I am sorry, Doctor, I have
19 fallen off the wagon.
- 20 A. Well, it must be related to
21 factors other than digoxin.
- 22 Q. Yes.
- 23 A. And therefore it could be
24 related to --
- 25 Q. I am thinking perhaps of
potassium levels.



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A. No, the potassium levels are all right by the time they are .9. It may be related to the potassium or to the hemodynamics of the condition, the baby's hear malformation itself, the degree of the disease.

You don't have to have digoxin in the body to get irregularity of the heart beat. That is what I am getting at.

Q. Oh, no, I understand.

A. Yes.

Q. I understand that. I am looking for a page, if you will bear with me for a moment. Because what we have towards the end of the chart are long fold-out charts that are copied page by page, not every page bears a number in the upper right hand corner but if you can find page 152 in that chart.

Do you recognize, Doctor, what the top half of that page is? Is it some note of post mortem or for post mortem?

A. I don't know what that is.

Q. Well, obviously the note in which I am particularly interested is the one half way down the page, "Date of death, 1 August, 1980, 27 days, digoxin".



1
2 Can you give me any help at all as to
3 the meaning of that notation?

4 A. I have no idea.

5 Q . Have you ever looked through
6 this chart in its entirety, Doctor?

7 A. I don't recall ever having
8 seen that. I certainly haven't gone through it
9 page by page.

10 Q . I take it if you had seen that
11 you might have asked a question as to what it meant?

12 A. I might have or I might not
13 have. I don't see what the relevance of that
14 comment is.

15 Q. I'm sorry, you don't see what
16 the relevance of the comment is?

17 A. I don't understand what it is
18 there for or whether it was meant to be something
19 else written alongside it or what it means I can't
20 see.

21 Q. Well, Doctor, it is idle for
22 us to speculate. We don't even know the author of
23 that quotation. I suppose it is possible that
24 somebody said as you did to me a few moments ago
25 that the terminal events and their course and
the method and manner of their onset are consistent



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with digoxin intoxication, and had seen the pattern
of giving and withholding digoxin, I don't know.

3

4

Doctor, in reviewing this chart, did
you have any concern at all about the time and manner
of Philip Turner's death?

5

6

A. No, I would not have any concern.

7

Q. I am sorry?

8

A. I would not have any.

9

Q. I know what you said. I asked
you if you did have any concern, not whether you
would have. Did you?

10

11

A. I did not have any concern.

12

13

Q. I take it in your view as you
formed it in the late summer or early fall of 1980
the anatomical condition of this child adequately
explained to you at that time the time and manner
of his death?

14

15

16

17

A. Yes. I think no question that
the post mortem information strengthened that
impression that I had.

18

19

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Q. The anatomy as diagnosed during
his life and as disclosed more fully at his death
adequately explained to you why he should have died
when he did?

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A. I believe so.

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Q. I want to come back to that later, Doctor, but can we now turn to the third of the three deaths that were reviewed on September 5; that of David Taylor.

Now once again, Doctor, we have a diagram which purports to represent the anatomy of David Taylor's heart, and from your ^uview of this chart can you tell us whether that is an accurate representation of the state of the child's heart?

A. Yes, I can.

Q. And it is, I take it?

A. Yes.

MR. LAMEK: May that be the next exhibit please, Mr. Commissioner?

I'm sorry, was there a number given?

THE REGISTRAR: 50. Exhibit 50.

---EXHIBIT NO. 50: Diagram of anatomy of David Taylor's heart.

Q. Once again, Doctor, please, can we pursue the pattern? Can you describe for us first the defects or deformities in that child's heart?

A. The principal abnormality here is demonstrated by this area that is marked in yellow, and what that is meant to represent is a marked thickening of the inner layer of the left



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ventricular.

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That condition is called endocardial fibroelastosis, and it is a pathologic term which implies a great increase in the amount of tissue over the normal one or two layers of lining that are usually seen in babies or in anybody.

So this is a very thick layer. It looks like porcelain in the gross appearance. It is associated with reduction in the size of the left side of the pumping chamber. It is a small pump on this side, and it has this very thick white glistening material which is endocardial fibroelastosis. So it limits the capacity at that ventricular to fill with blood and to eject properly.

That condition is associated here with very marked thickening of both the aortic valve and the mitral valve, so those valves are obstructed or stenotic.

This particular combination gives rise to severe heart failure and is again a variety of hypoplastic left heart syndrome. It is part of the spectrum of anomalies.

In this baby's case, however, the baby survived for some period before presenting to us, so that initially the picture was clinically more



1
2 that of an obstructed aortic valve or aortic valve
3 stenosis, and the patient was initially regarded as
4 having as its primary lesion the aortic valve
5 obstruction, and only a secondary lesion affecting
6 the left ventricular.

7 As it turned out later and was confirmed
8 by autopsy, the primary reason is underdevelopment
9 of the left heart and a small left ventricular with
10 fibroelastosis in the valvular components, although
11 of considerable practical importance are not the
12 major determinant of how the baby would do.

13 So the condition is primarily that of
14 endocardial fibroelastosis, and we term that a
15 contracted type, meaning that the ventricular is small
16 as opposed to a type which is more commonly seen in
17 older babies where the left side of the heart, although
18 covered with this material, is much bigger than
19 normal.

20 That is the bigger ventricular is
21 associated with a primary type of endocardial
22 fibroelastosis and this form is termed the contracted
23 type because it is a very small left side.

24 The effect of that lesion is to cause
25 back pressure in the top receiving chamber on the
left side, the left atrium, in the pulmonary veins



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which hook into there from the lungs on each side,
and that pressure is reflected back through the
lungs into the pulmonary artery and right ventricular,
so here in this condition there is very high pressure
reflected on the right side of the heart because of
inability of the left side to function as well as
it should.

- - - -



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Q. There was post mortem examination of this child, was there not?

A. There was, yes.

Q. Are you able to tell us, doctor, which of the defects and problems that you have just described was known before death and which only became apparent on autopsy?

A. The aortic obstruction was known before death, and the endocardial fibroelastosis was suggested by the ultrasound examination but that was not thought at the time to be the major component. It was thought that the probable major problem was the aortic valve stenosis. The autopsy revealed a somewhat different combination.

Q. You just referred to the ultrasound examination, is that the same as echocardiogram?

A. Yes. The echocardiogram did show stenosis of the aortic valve and it did show abnormality of the mitral valve and it did suggest endocardial fibroelastosis, but the clinical impression was more in favour of it being a valvular obstruction; it was the autopsy that clarified the matter.

Q. Thank you.



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Do I understand you to be saying that what was revealed on autopsy was a significantly more serious condition than that which had been diagnosed during the child's life?

A. Both of those conditions are very serious but that is true, it is more serious to have the condition of endocardial fibroelastosis of this type.

Q. Now, doctor, in reviewing the death of this child, including the time and manner of his death --

A. Yes.

Q. -- what were the elements in this case and in this chart that seemed to you to be significant?

A. Well, he obviously was in considerable difficulty from heart failure but he did improve initially with regard to treatment. It was considered that he would be suitable for examination by heart catheterization, as I see from the records, within a short time, and I think the 28th of July was the contemplated time of study. But he deteriorated the evening before.

Q. In the summary that appears in the minutes of the ~~letter~~ ^{meeting} of September 5th under



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David Taylor's name, is that the hand of Dr. Rowe;
is that his summary or is it someone else's? Do you
have a recollection?

A. The summary in...?

Q. In the minutes.

A. Friday, September 5th?

Q. Yes.

A. Yes, that would be my
summarizing statement of the situation.

Q. And, again, the nurse's
manuscript notes are available to assist us in what
else may have been said.

Now, can we look at the chart for
a moment, doctor, and, once again, we have a reporting
letter ^{as} ~~of~~ the first item in the chart on this page - it
is Page 0 - five times, six times.

A. Yes.

Q. This is Dr. Freedom's reporting
letter and Dr. Freedom is a Staff Cardiologist at
the Hospital?

A. He is Staff Cardiologist at
the Hospital. He is also a cross-appointment in the
Department of Pathology.

Q. And he goes on in the course
of his letter to refer to the autopsy findings but,



1
J4 2 again, in his first letter he uses a word, and maybe
3 we will have to ask him what he meant:

4 "As we talked about on the morning
5 of the 28th of July, this infant
6 unexpectedly sustained a cardiac
7 arrest early in the morning of
8 July 27th and could not be resus-
9 citated."

10 Now, it is clear from the balance
11 of the letter that, as of July 28th, Dr. Freedom was
12 aware of the gross autopsy findings because he goes
13 on to refer to them, does he not?

14 A. Yes, he does.

15 Q. Did you have any conversation
16 with Dr. Freedom as to why he characterizes the
17 arrest of David Taylor in the earlier memo of July
18 27th as unexpected?

19 A. No, I have not.

20 Q. From your review of the
21 chart, do you share the view apparently expressed
22 that, as at the time of the arrest, it was un-
23 expected?

24 A. I think that is a reasonable
25 statement. I think it is quite possible that that
could happen, but I agree that it was an unexpected



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turn.

Q. I'm sorry, a what?

A. An unexpected turn.

Q. I missed a few words before
that.

A. I agree that it was un-
expected, recognizing that the way we use that term
is perhaps different from the way you use it.

Q. Tell me how you are using
it, doctor.

A. Well, we would say perhaps
sudden but not unexpected; not necessarily unexpected.

Q. Sudden but not necessarily
unexpected.

A. No. Because the anatomy of
the patient's condition would say to us, look, this
is a very severe malformation and that baby is at
risk to suddenly deteriorate.

Q. But I guess (not) at the time
of the arrest, being fully apprised of the baby's
malformation, the suddenness of it may itself have been
surprising, is that fair?

A. No, that is not fair, because
this baby was recognized as having very severe left
heart disease. The electrocardiogram had what we call



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left ventricular strain. There was a suspicion of endocardial fibroelastosis and, under those circumstances, that baby, regardless of the additional details of --

Q. I suppose we will have to ask Dr. Freedom what he meant by "unexpected" then.

A. I expect you may.

Q. In the light of what you from the chart, can see was known of this baby's condition at the time of the arrest then, you will go this far with me, doctor, that the arrest was sudden but not unexpected?

A. Yes. I think that is a fair description.

Q. Do you know whether members of your Division, speaking first of the cardiologists and Fellows, other than Dr. Freedom, used the word "unexpected" to describe this baby's arrest?

A. I am not aware of it.

Q. Do you know whether any nurses regarded the arrest as unexpected?

A. I don't recall that. I can't remember whether, in the notes that Mrs. Radojewski made, they made that comment.

Q. Now , as you said, Baby Taylor



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had shown some improvement in the couple of days
had been in the Hospital, had he not?

A. Yes.

Q. And, indeed, your minute
of the discussion of Taylor at the September 5
meeting records that the baby was:

"...treated, improved a little
and started vomiting, developed
heart rhythm disturbance and had
an arrest."

A. Yes.

Q. Now, doctor, that is
compressing into very short compass the events of
a couple of days, is it not?

A. Yes.

Q. The death chart, or death
report, which is found at page 15 of the chart,
records the child as having been admitted on the
25th of July. It states his progress in hospital
at the bottom of page 15:

"He was in congestive heart failure
and was given the appropriate doses
of digoxin and lasix. On the 26th
of July he appeared much better
than on admission. His liver was



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1 cm and his heart and respiratory rates were within normal limits.

At 12:10 a.m. on July 27th he had a small amount of regurgitation."

I have to ask you, doctor, what is regurgitation as used in this context?

A. Probably vomiting.

Q. Okay, because it can mean other things, can it not, in cardiology?

A. Yes, indeed.

Q. But you would read this as being vomiting?

A. I would imagine so, yes.

Q. "His heart rate and blood pressure thereafter were within normal limits."

That is at 12:10 on the 27th.

"At 1:10 a.m. he was noticed to have an irregular apex. A rhythm strip showed sinus tachycardia with varying 2 to 1 block and Wenckabach's block, 2 atrial foci were present."

Okay. That report is apparently written by Dr. Heilbut. Do you know who Dr. Heilbut is?



1
J10 2 A. Dr. Heilbut was a Cardiac
3 Fellow.

4 Q. And would obtain information
5 as to the child's progress in hospital from the chart,
6 I take it?

7 A. From the chart or from the
8 Cardiac package.

9 Q. Now, to the extent that your
10 summary in the minutes, doctor, refer to David Taylor
11 as having improved a little, and Dr. Heilbut, in
12 recording the child's progress in hospital from the
13 information available to him, described the child
14 as being much better on the 26th than on admission.

15 Is that merely a matter of degree
16 of judgment between the two of you?

17 A. I expect it is. It would be
18 hard for me to say that the child was "much better"
19 based on what we --

20 Q. Appeared much better?

21 A. Could appear better.

22 Q. On which observations in
23 the chart did you base your statement that the patient
24 improved a little?

25 A. I can't recall specifically
where I measured that. It may have been from



J11

1
2 conversation with Dr. Vera Rose, who was the
3 cardiologist - she was the Ward Chief of the month -
4 or with Dr. Izukawa one or the other. But I have
5 a note that there was some improvement with therapy.
6 So, the plan was to continue with that therapy and
7 stabilize the baby further before taking on what
8 would obviously be a high-risk examination.

8 Q. And the therapy in the
9 course of his initial couple of days in the Hospital,
10 it was directed to treatment of his congestive heart
11 failure, was it?

12 A. Yes.

13 Q. That is, digoxin and lasix,
14 diuretics and digoxin?

15 A. Yes.

16 Q. And, therefore, any response
17 to that treatment must be, I take it, in terms of the
18 degree of congestive heart failure that he was
19 manifesting?

20 A. Yes.

21 Q. Can we look at the nursing
22 notes there, page 19 of the chart.

23 "He was admitted at noon on July
24 25th; note of the diagnosis, note of the IV started -
25 lasix, digitalized; cardiac vital signs BP stable;



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even in all limbs. Pale, slightly sionotic when upset."

Now, as we go through the 26th, the 27th, is there anything in the nursing notes to suggest that he is not responding well to the drugs which are being administered for the congestive heart failure?

A. I can't see anything. I see a note there that seems to be cut short at the bottom of page 19, which I recognize as being the writing of Dr. Izukawa.

Q. And then the next thing is the final note of Dr. --

A. Yes.

Q. Is that also Izukawa?

A. No. It is different. And there is a sentence that seems to hang in the middle of nowhere.

Q. "Noted to be regurgitating and...?"

A. Yes.

Q. It may be that indeed was interrupted by the arrest, since it is noted as being at 1:10 in the morning.

A. Yes. I think -- well, it



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may be. I am not sure why Dr. Izukawa would be in the hospital at that time, unless there had been a deterioration prior to that point. I don't have a date there. I don't have a time for that note.

Q. It says "27.7.80", does it not?

A. Yes, but I don't have a time of day.



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Q. No, I appreciate that. There are times given for the episodes that are reported. The episode of vomitting at 12:10 a.m., heart rate - what is that, appropriate? Is that an abbreviation for appropriate or what?

A. Approx.

Q. Oh, that's an 'x', is it?

A. I think so.

Q. Approx at 1:20?

A. Yes.

Q. 1:10, which I take again to be a time noted to be regurgitating. Would you read regurgitating in this context to mean vomitting?

A. Yes.

Q. And the next thing that is in the chart as it was received and copied by us, I tell you, Doctor, the thing headed "27/7/80 Final Note - David Taylor", if there is any remainder to which the note/appears at the bottom of the preceding page, I tell you I don't know what it is or where it is.

But, Doctor, is it not fair from the chart that is available to us that through the 26th the chart is a continuing record of stability and vital signs, breathing seems to be satisfactory, child seems to be alert and active, feeding well, through



1
2 the 26th, and until the reference to the episode
3 of vomitting at 12:10, the note at the foot of page
4 15 appeared "Better than on admission".

5 A. That of course doesn't really
6 say more than that.

7 Q. No, it doesn't, but it does
8 at least say that, doesn't it, Doctor, that the child
9 was apparently responding to the treatment of the
10 congestive heart failure.

11 A. But the degree to which it is
12 responding is not clear from that note. "Better than
13 on admission" may be that the baby was just a little
14 bit better or it could be interpreted as very much
15 better. I doubt it could be very much better
16 noticing the malformation that we're talking about.
17 It is not possible for that baby to get hugely better.

18 Q. Oh, in terms of the anatomy
19 that may have been causing the congestive heart
20 failure.

21 A. No, even the congestive heart
22 failure could not be hugely improved.

23 Q. Well, what does "liver 1
24 centimetre" suggest in the note on 27/7/80?

25 A. That suggests that the liver
size might be normal.



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Q. If there is any severe

3

measure of congestive heart failure, there would be
4 distension or enlargement of liver.

5

A. Not necessarily. It often
6 is the case but it depends on a number of factors.

6

7

If most of the congestion is in the lung on the
7 left side, it may not be reflected in that way.

8

9

Q. But the notes that record

10

urinary output good, post lasix administrations
10 suggests that the lasix, the diuretic is doing what
11 it is designed to do.

11

12

A. Yes.

13

Q. In a patient with congestive
13 heart failure?

14

A. It would suggest that.

15

16

Q. Yes. Will you go this far

17

with me, Doctor, that until 12:10 a.m. in the morning
17 of the 28th, there is nothing in the chart to suggest
18 that this child is suddenly going to die?

18

19

A. No, there's nothing in the
19 chart to suggest that.

20

21

THE COMMISSIONER: 12:10 a.m., I
21 take it is 10 minutes after midnight?

22

23

MR. LAMEK: Yes. No, sorry, 12:10
23 a.m. is noon I suppose, isn't it -- no, 12:10 a.m.

24

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must be after midnight, yes, sorry. I'm not working
on the 12 hour clock.

4

Q. And at 10 minutes after

5

midnight there is an episode of vomitting, so the

6

chart appears to disclose, doesn't it, Doctor?

7

A. Yes.

8

Q. I don't see any prior notation

9

of vomitting in the chart until that point, do you?

10

He seems to have been tolerating his feeds well,

isn't that correct?

11

A. I don't see anything there.

12

Q. No.

13

A. Yes, I don't see anything there.

14

Q. But it seems, does it not,

15

that the vital signs remained stable after that

16

episode of vomitting, heart rate approximately 1:20

17

is recorded in that note, and then at 1:10 a.m.,

the note is that he regurgitated. You told me you

18

would read that in this context as vomitting again.

19

A. A small vomit.

20

Q. A small vomit. Regurgitate

21

sounds like a very large vomit but I will bow to

22

your characterization of it.

23

It appears ^{he has} as an irregular pulse at

that stage?

24

25



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A. Yes.

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Q. And a mild tachycardia, is

4

that what is recorded, looking at page 20? He was

5

in sinus rhythm with a mild tachycardia, middle of

6

the page.

7

A. Yes, yes.

8

Q. Oxygen started shortly after

9

his heart rate dropped and his rhythm became irregularly

10

irregular. That would suggest it was going irregular,

11

becoming regular, going in and out of irregularity,

arrhythmia?

12

A. No, it would suggest that it

13

was irregular the whole time but that the irregularity

14

had different phases to it. It is a bit hard to

15

explain that but it doesn't mean necessarily that it

16

would be going to regular arrhythm, it just means

that the irregularity varied from one second ---

17

Q. The degree of irregularity

18

would vary?

19

A. But it was irregular the

20

whole time.

21

Q. The whole amount of time.

22

All right, is there any indication of - well, his

23

heart rate drops, he has a slowing heart rate and

24

irregularity and seconds later he arrested, if I

25



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read the chart correctly.

3

A. Yes.

4

Q. And could not be resuscitated?

5

A. Yes.

6

Q. Again, Doctor, does it not

7

appear to be a very rapid course of terminal events?

8

A. Yes, I would think that he

9

went into ventricular fibrillation. That's what

10

Q. And that, after a day and

11

a half, when, from the charts at least, it appears

12

his condition had been stable, his vital signs

13

stable, he had been feeding well, he had been lively

14

and alert?

15

A. Yes.

16

Q. Is it not fair to say,

17

Doctor, that in light of that immediate history and

18

the stability that has seemed to be achieved with

19

this child that the onset of the terminal events and

20

their rapid course and the death were not expected
to occur when they did?

21

A. We get back to this problem

22

of expected and unexpected deaths.

23

Q. When they did?

24

A. Yes. I have difficulty

25



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3 answering that because, I would agree that there was
4 a sudden deterioration, but whether one would say
5 that was unexpected in knowing the anatomy of this
6 baby and the severity of the problem involving the
7 left ventricle and the speed with which the
8 arrhythmia advanced into what was obviously
9 ventricular fibrillation, in retrospect one would
10 have difficulty in saying that was unexpected, but
11 it certainly was sudden.

12 Q. Well, as you say, we will
13 have to ask Dr. Freedom what he meant when he used
14 that word "unexpected".

15 Now, I acknowledge, Doctor, what
16 you say, that in light of the anatomy of this child,
17 particularly as it was clarified or emphasized at
18 autopsy, it was clear that David Taylor had a very
19 serious problem in his cardiac anatomy. I take it
20 you will agree with that?

21 A. Yes, I think we can agree on
22 that.

23 Q. But Dr. Freedom was considering
24 surgery for this child, was he not?

25 A. Yes, he was.

Q. Certainly he was planning a
cardiac catheterization to determine the nature and



1
2 extent of the baby's problems. That doesn't suggest,
3 does it, that Dr. Freedom thought the child was at
4 imminent risk of death and would die in the small
5 hours of July 27th?

6 A. Well, of course, I can't
7 answer for Dr. Freedom, but I would be very surprised
8 if he thought this baby wasn't at an extremely
9 high risk of doing so.

10 Q. Well, as you say, we will
11 have to ask him.

12 A. Yes.

13 Q. In the meeting on September
14 5th when this baby's death was discussed, do you
15 recall any reference to digoxin and to whether
16 baby Taylor may have been suffering from digoxin
17 intoxication? Fairly, Doctor, I refer you to the
18 manuscript note which I believe to have been made
19 by Head Nurse Radojewski.

20 A. Yes.

21 Q. Under the heading "David
22 Taylor".

23 A. Yes.

24 Q. There is a notation two-thirds
25 of the way down the page "ECG ST down depression,
query dig toxic".



K9

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A. Yes.

3

Q. Do you recall any discussion
of that at the meeting?

4

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A. I'm not sure whether that's
referring to the admission arrangements. It looks
as though it's a Sunday evening it is referring to,
doesn't it. So, this is the event we have just
been describing.

6

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8

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Q. Yes.

10

A. Yes. Well, I think that is

11

an appropriate comment because, in addition to the

12

fact that the anatomy could produce that disturbance,

13

it is also possible that that disturbance might be

14

caused in this situation by therapeutic doses of

15

digoxin, by therapeutic doses.

16

Q. Well, I recognize the point

17

you are making, Doctor. To put it more neutrally,

18

the pattern could appear as a result of digoxin.

19

A. Yes.

20

Q. Either therapeutic or non-

21

therapeutic digoxin.

22

A. Yes.

23

Q. Now, you say it is a

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perfectly appropriate note but the question I asked

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you, was, do you recall any discussion at the



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meeting as to digoxin intoxication in the context
of the review of the terminal events of this child.

A. I don't personally recall,
but I wouldn't be surprised if that point came up.
As you can see from my minutes, they weren't nearly
as detailed as Mrs. Radojewski's. I expect there
were things that took place in the meeting that I
didn't incorporate in the minutes because they
are about a third of the size of hers. But I
don't remember that. But that would have been a
point that we would have expected somebody to comment
upon and to bring forth in the discussion.

Q. You say that would have been
a point that you would have expected somebody to
bring up?

A. Yes.

Q. Why would you have expected
that?

A. If there was an irregularity
or block or a serious dysrhythmia, then it would be
one of the considerations that might be made by
various people. I believe that Dr. Izukawa reviewed
the digoxin material as far as the doses are concerned
in the baby and I checked myself the total
digilizing dose, as we call it, that was given.



Rowe, dr.ex.
(Lamek)

Pp. 1868, 1869
Follow

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2

cardiac arrhythmias?

3

A. Yes.

4

Q. Heart block?

5

A. Yes.

6

Q. Changes on his ECG?

7

A. Yes.

8

Q. And vomiting.

9

A. Changes on his ECG were

present before on admission.

10

Q. Yes.

11

A. But he did have other changes,

12

yes.

13

Q. And vomiting?

14

A. And vomiting.

15

Q. And notwithstanding that

16

those symptoms are not necessarily specific to

17

digoxin intoxication, are they not the generally

recognized symptoms of that condition?

18

A. Yes.

19

Q. And we have to say, therefore,

20

do we not, that in the last hour of his life David

21

Taylor displayed a set of symptoms that are entirely

22

consistent with digoxin intoxication?

23

A. Yes.

24

Q. Indeed, Doctor, of the three

25



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Q. When did you do that,

3

Dr. Rowe?

4

A. I did that more recently.

5

But the reason was that on reflection of the
6 dysrhythmia in this particular baby and understanding
7 anatomic detail I wondered whether regular
8 therapeutic doses of digoxin, which would not be
9 expected to produce digitalis toxicity might in
10 this particular situation produce dysrhythmia.

11

The reason for that is that in

12

patients who have endocardial fibroelastosis there
13 is rather an undue sensitivity to the effects of
digoxin.

14

Q. Yes.

15

A. And that possibility does

16

still exist.

17

Q. I confess, Doctor, I didn't

18

find any reference to digoxin levels in the chart of
19 this child. There is a clinical chemistry report on
page 24.

20

A. Yes.

21

Q. It does not, as I read it,

22

seem to record a digoxin level. What then did you
23 review when considering the possibility that this

24

child may, because of his malformation or heart defect,
25 have been unusually sensitive to even therapeutic
doses of digoxin.



L/EMT/ak

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A. We simply reviewed the

anatomy at the time. In considering how a baby with that particular arrangement of anatomy dies, what happened is not surprising to us.

In hindsight, looking at the question of endocardial fibroelastosis, the possibility existed that was a contributing factor.

But even at the time when we thought that the aortic stenosis was more important, the same situation exists because with aortic stenosis that is very severe the left ventricular function is gravely impaired. It is ischemic; it has less blood than it should have going to it and therefore is in the same way susceptible more to digoxin, so with perfectly ordinary levels one might expect that sort of possibility.

Q. Yes.

A. As well as the fact that this just simply went in that electrical disorder because of the nature of the severity of the malformation.

Q. Well, Doctor, recognizing the lack of specificity of symptoms associated with digoxin intoxication, nevertheless is it not fair to say that baby Taylor here in the course of a sudden and rapid sequence of terminal events exhibited

(P. 1870 is 2 pp back!)



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TORONTO, ONTARIO

Rowe, dr.ex.
(Lamek)

L3 1
2 children whose deaths were reviewed at the September
3 5 meeting, I understand your point entirely that
4 in each of those cases the anatomy of the children
5 was perfectly capable of explaining their deaths at
6 the time they died, nevertheless in each of those
7 cases did any of them display terminal symptoms
8 that were not consistent with digoxin intoxication?

A. No.

9 Q. And it may be, Doctor, that
10 the most that you are able to say is that their
11 anatomy, their anatomical deformations, heart defects
12 and so on, although perfectly capable of causing
13 their deaths at the time and in the manner that
14 those deaths occurred, may or may not have done so?
15 Is that fair?

A. Yes, I think that is so.

16 MR. LAMEK: Mr. Commissioner, it is
17 one o'clock and I am about to go to the next
18 meeting.

19 THE COMMISSIONER: Yes. All right.

20 MR. LAMEK: Is this an appropriate
21 time?

22 THE COMMISSIONER: Yes. 2:30 then.

23 ---Luncheon recess.
24
25



EMT/ak

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---Upon resuming at 2:30 p.m.

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THE COMMISSIONER: Mr. Lamek?

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MR. LAMEK: Thank you,

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Mr. Commissioner.

6

Q. Doctor, just before we leave

7

the case of David Taylor, I think you told me

8

shortly before we broke for lunch that you had made

9

some investigation or review with respect to Taylor
and digoxin doses or levels.

10

Could you remind me of not so much of

11

what you said as what you did in that regard?

12

A. I don't believe we did any

13

investigation of the levels because I don't think
any were done.

14

Q. Yes, that is my understanding.

15

A. I think I was really referring

16

to the question that presumably was raised in the

17

conference about the possibility of digoxin

18

toxicity and my feeling that the explanation - of

19

the irregularity - could be either due to the fact

20

of acidosis or due to the fibroelastosis which

21

predisposes to the effects of digoxin, ordinary

22

digoxin doses, or to the effect of the disease
itself.

23

I had no method of looking at digoxin

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level.

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Q. I see. That was a question
that was merely raised in your mind?

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A. Yes.

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Q. All right. And do I understand
it was raised in your mind at the time of the M and M
Conference in September?

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A. Well, I am simply looking at
that comment in the minutes there, so I presume it
was talked about at the conference. I can't recall
the details of that, but I have no reason to believe
it might not have been raised.

13

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15

Q. Now was Taylor on digoxin
throughout his quite short stay at the Hospital,
Doctor?

16

17

A. I don't have the chart in
front of me.

18

19

Q. I am sorry.

20

A. But I would assume he was.
I would be surprised if he were not.

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23

Q. There is a nursing note on
page 19 which refers to his admission at noon on the
25th of July. It say an IV was started, blood work
done and lasix given IV and digitalized.

24

25

Does that suggest that from the time



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of his admission that he was being treated with
digoxin?

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A. Yes, it does.

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Q. At what point in the course
of his stay was the diagnosis made of suspected
endocardial fibroelastosis?

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A. I would think that would have
been entertained on the original clinical
impression because of the electrocardiogram which
had characteristics of that association, but more
likely that feeling was strengthened by the electro-
cardiographic detection suggesting the presence of
endocardial fibroelastosis.

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Q. And the endocardiographic
proceeding was performed when?

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A. On the 25th.

Q. On the day of his admission?

A. Yes.

Q. Doctor, if at that time it

was if not confirmed at least suspected that part
of this child's problem was endocardial fibroelastosis,
why was not a digoxin level taken at any time during
the course of his stay in the hospital?

THE COMMISSIONER: What was the
question? Why would ---



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MR. LAMEK: Q. Why was there no digoxin level taken during the course of his stay in the Hospital?

A. Right.

Q. Because as I understand you that is a condition that may sensitize a patient to the effects of digoxin.

A. Yes. Well, it might have been because it was the weekend. He came in on Friday at 12 o'clock as I see on page 19.

Q. Yes.

A. And it might have been very difficult to get levels as an emergency.

And it is not to be perfectly frank essential in the management of digoxin therapy because for many, many, years we managed these babies without digoxin levels.

Q. I take it those were those days when digoxin levels could not be measured with any degree of accuracy because of the minute concentrations that were to be detected.

A. No, because the method was not introduced until the seventies.

Q. Doctor, I preferred your earlier explanation. Tests may not have been available



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because of the weekend. Are you seriously suggesting to me that because before the introduction of an appropriate assay method, digoxin levels were not done, that therefore now you are not concerned about them even with the availability of the assay technique?

8

9

A. No, but I think it should be understood that there is a tremendous debate in the medical community and the literature ---

10

11

Q. Yes.

12

13

A., --- as to the validity of the digoxin levels in the management of patients with disease.

14

15

I would be inclined to agree that the digoxin level would have been something that I would like to have seen.

16

17

Q. Yes.

18

A. In this particular instance.

19

20

21

Q. When following the death of David Taylor, did it first occur to you that the course of that child's terminal events could possibly be indicative of digoxin intoxication?

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A. I am not sure - I would not have at the time considered that a likely possibility at all in view of the situation.



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It is theoretically possible, but in practical terms when you have a baby with this malformation, I would be prepared to say that the most likely explanation for those findings would have to be the clinical course of the patient.

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Q. Well I understand, but you did have a patient who exhibited a certain set of terminal events over a short space of time, all of which may be symptomatic of digoxin intoxication.

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You had a baby who was believed to have endocardial fibroelastosis and who had been on digoxin throughout his recognizably short stay in the Hospital, and in whom no digoxin levels had been taken.

16

17

18

A. Right.

19

20

21

Q. A child with a condition which is known to sensitize the patient to digoxin and to make perhaps ordinary doses toxic.

22

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Was it not perhaps a little more than a possibility that that is what had happened to David Taylor?

A. No. I think that I may not have made it clear. There is no evidence that endocardial fibroelastosis causes excessive levels



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of digoxin to occur in the body. It is a more
complex inter-reaction than that, and the levels
may be quite normal ---

4

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Q. Yes.

6

A. --- but the baby showed those
effects.

7

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Q. But it is a predisposing
condition to intoxication as I understand it?

9

A. It may be.

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Q. Yes. And therefore I say
knowing that he had a condition which predisposed
or could predispose to intoxication at levels which
would not produce toxicity in another child, and
knowing that he died exhibiting a series of symptoms
which may well be characteristic of digoxin
intoxication, was it not more than a mere possibility
that digoxin had played some part in his death?

17

18

A. It could be. It might have
done that.

19

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21

Q. Did that consideration occur
to you at any time prior to September 5th when there
was apparently some discussion of that possibility?

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A. No.

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Q. I take it on September 5th
there was nothing that could be done to follow up



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that possibility either to confirm it or to establish
its invalidity?

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A. No.

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Q. And autopsies had been
long completed I take it?

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A. I don't think that that would
have helped either.

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Q. Could anything have been done
as at September 5th to make enquiry?

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A. I don't believe so.

Q., Now, the second Mortality

and Morbidity Conference was scheduled for September
26th, some three weeks later. And I understand there
had been two deaths on the ward during the month
of September; one we have already mentioned, that of
Laurette Heyworth who had died on September 2nd
(that is to say before the first of the Mortality
and Morbidity Conferences on the 5th of September)
and then the day before the second conference,
Brian Gage died on the ward, did he not?

A. Yes.



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Q. I ask you Doctor, that in light of the fact there had only been one death in the three week period between the two conferences, did it perhaps occur to you as at September the 26th that perhaps the run of ward deaths in July and August had been a bad luck streak that had now come to an end, did that occur to you as a possibility?

A. Well, I am not sure that I thought of that at the time because we had three other infant deaths in the operating room.

Q. Yes.

A. And as I think I have said before we tend to look at this globally rather than in specific rooms. But certainly there were not as many on the ward.

Q. I understand that you look at deaths globally, Doctor, but you told me this morning that one of the purposes of the September 5 meeting was to reassure the nurses that the babies who were dying on the wards were not dying because the nurses were mismanaging the cases?

A. Yes.

Q. And therefore the location of the deaths to that extent at least must have been a matter of which you were aware?



Rowe, dr.ex.
(Lamek)

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A. Yes.

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Q. And were you not, during the month of September, looking to see if the increased incidents of death on the ward were continuing?

5

6

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A. I don't know that I was looking, but certainly it would be reported to me in the daily conferences, or those which I attended.

8

9

Q. And there were only two of those deaths during the month of September?

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A. Yes.

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Q. Is it your evidence that as of September 26th you had not focussed upon the location of particular deaths during the month and therefore had formed no conclusion as to whether the cluster as you referred to it yesterday may have come to an end?

16

17

18

A. No I wouldn't have, because I was in Porto Rico during that month, or part of the time.

19

Q. Between the two meetings?

20

A. Yes.

21

Q. You chaired the meeting on the 26th?

22

A. Yes.

23

24

Q. Were you not concerned before going into that meeting to know what had happened

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Ravi's inability to recall his responses to situations and developments in the chain of events from and after July/80 must be indicative of the measure of concern that he had about those events!



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in September?

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A. Yes.

4

Q. And what were you told?

5

A. I was told there had been two deaths.

6

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Q. And did it not, upon learning that, did it not occur to you that perhaps the cluster had now come to an end?

8

9

A. It may have.

10

Q. You don't recall?

11

A. I don't recall.

12

Q. You chaired the meeting on September 26th, and I think once again you prepared the minutes, did you not?

13

14

A. I did.

15

Q. ~~But~~ I am showing to you a page and a half of minutes that purport to be of the conference held on Friday, September 26th. Is that a copy of the minutes that you prepared?

16

17

18

A. That is.

19

20

MR. LAMEK: Thank you. May that be the next exhibit please, Mr. Commissioner.

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THE COMMISSIONER: Exhibit 51.

22

---EXHIBIT NO. 51: Minutes of conference held on September 26th, 1980.

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Q. Once again, Doctor, those in attendance are identified by occupation, or status, rather than by name. Staff cardiologists, five Fellows, nine nurses. Are you able in this distance of time to attach names to any of those descriptions?

A. No, I wasn't.

Q. Once again I ask you were there any notes prepared by you in making preparation for this meeting?

A. I don't recall that I have any, I certainly don't have any notes, I may have made some notes to deal with some minutes, but that is all.

Q. Once again do you recall whether anyone was taking notes at the meeting?

A. No, I don't recall anybody taking notes.

Q. It seems once again Doctor we had an assiduous note taker, apparently among the nurses and I am going to show to you copies of manuscript notes, again from the Ward 4A Communications Book, headed "Mortality Rounds September 26". I cannot I am afraid tell you who I suspect prepared these notes, I don't recognize the handwriting, but I supplied a copy of the notes



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to you yesterday, have you had a chance to review them, Doctor?

A. Yes, I have those notes.

Q. Do they appear to you to be notes of the matters discussed at the Mortality and Morbidity Conference on the 26th?

A. They do.

Q. And a reasonable outline to the best of your recollection of what was discussed?

A. Yes, I would expect so.

Q. And is this, Doctor, a copy of the document that I provided to you and which you have reviewed?

A. Yes.

MR. LAMEK: Could that be the next exhibit please, Mr. Commissioner.

THE COMMISSIONER: Exhibit 52.

---EXHIBIT NO. 52: Handwritten notes Mortality Round September 26th, 1980.

THE COMMISSIONER: We don't know the author I understand.

MR. LAMEK: We don't know the author.

Q. Now, Doctor, we start with the notes, the manuscript notes. It first lists the cases to be discussed, Kelly Monteith, Antonio



1
2 Velasquez and Shrum; see over minutes of meeting.
3 Reference to discussion as to the more appropriate
4 time for such meetings to be held in the future.
5 Then at the bottom of the page a list of names,
6 Liz, Mary, Diane and then a list of doctors' names
7 if I can read it; Dr. Jedeiken, Dr. Schaffer, Dr.
8 Rowe, Dr. Rose, Dr. Olley, Dr. Izukawa and I
am afraid I can't read the last one.

9 A. Dr. Duncan.

10 Q. Dr. Duncan?

11 A. Yes.

12 Q. Is that a list of names, to the
13 best of your recollection, of the people who were at
14 the meeting, Doctor?

15 A. It doesn't help me very much
16 but I assume they were there.

17 Q. All right, thank you. Now
18 then at this meeting three further deaths were
19 discussed; I am afraid not as your secretary
20 transcribed it in your minutes, Dian, but Dion Shrum
21 who had died on August the 9th at 10 o'clock in the
22 evening; Kelly Ann Monteith who died on August
23 the 19th at 4:45 in the morning; and Antonio
24 Velasquez who died on August the 34th at 4:25 in
25 the morning.



1
2 Perhaps we can take a look at those
3 charts please. Doctor, I am showing to you what
4 I believe to be a copy of the Hospital's chart
5 for Dion Shrum, and I wonder if you could just take
6 a look at that and confirm for me that that is
7 indeed what it is?

8 A. Yes, that is.

9 Q. And second, I believe to be
10 a copy of the Hospital's chart for Antonio Velasquez,
11 and could you similarly confirm for me that that
12 is what that is?

13 A. Yes, I agree.

14 Q. And third, a copy of the
15 Hospital's chart for Kelly Monteith, can you give
16 me the same confirmation there?

17 A. Yes, I can.

18 MR. LAMEK: Thank you. Mr. Commissioner,
19 could the next three exhibits be respectively the
20 medical chart for Dion Shrum.

21 THE COMMISSIONER: Exhibit 53.

22 ---EXHIBIT NO. 53: Medical chart re Dion Shrum.

23 MR. LAMEK: The medical chart for
24 Antonio Velasquez.

25 THE COMMISSIONER: 54.

---EXHIBIT NO. 54: Medical chart re Antonio Velasquez.



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2 MR. LAMEK: And the medical chart for
3 Kelly Ann Monteith.

4 THE COMMISSIONER: 55.

5 ---EXHIBIT NO. 55: Medical chart for Kelly Ann
6 Monteith.

7 MR. LAMEK: Thank you. Your indulgence
8 for a moment please, Mr. Commissioner.

9 Q. Once again, Doctor, there are
10 diagrams and maybe we should start with Dion Shrum.
11 Once again, Doctor, I am going to ask if you can
12 confirm for me first that the diagram which is
13 beside you, which has been furnished by the Hospital,
14 on the basis of your review of the chart accurately
15 depicts the heart of Dion Shrum?

16 A. Yes, it does.

17 MR. LAMEK: May that be the next
18 exhibit please, Mr. Commissioner.

19 THE COMMISSIONER: 56.

20 ---EXHIBIT NO. 56: Diagram of heart of Dion Shrum.

21 Q. Doctor, I wonder if you would
22 be good enough please to describe the anatomy of
23 that heart and defects and deformities if any that
24 appear there.

25 A. In this heart the principal
problem is that the blood coming back from the lungs



1
2 to the heart, after receiving its oxygen, instead
3 of normally as it does going into the left atrium,
4 as is seen on the diagram on the left from each
5 side, two veins from the left lung and two from the
6 right enters instead into a structure called the
7 coronary sinus which is a vein between the upper
8 and the lower chambers of the heart and which
9 normally simply brings back the supply of blood that
10 has gone through heart muscle and coronary arteries.

11 So the coronary sinus normally drains
12 into the right atrium as a small orifice somewhere
13 around here, but in this situation all the pulmonary
14 veins instead of coming to the left side come to
15 the right. Now that means that of course survival
16 is not possible unless there is some way in which
17 blood can get from the right side to the left.
18 So that there is an atrial communication or an
19 atrial septal defect present. Blood then comes
20 back in the usual way from the vena cava and is
21 received in the right atrium and that is the
22 cyanotical blue blood which has had most of its
23 oxygen relieved or removed.

24 Now there is a communication from the
25 lung vessels here, which means that mixing in this
receiving chamber on the right side is a huge amount



1
2 of blood coming back from the lungs. So that
3 instead of having blue blood on the right side
4 coming down to the right chamber and out the lungs
5 you have only blue blood as far as here and the
6 moment it enters the right atrium the blood is
7 mixed with highly oxygenated blood, so you get the
8 same effect as a Waring blender, and all the blood
9 is completely mixed from that point on, the blood
10 going down here, out to the lungs, the blood going
11 through the hole in the septum and over to the left
12 side and then down into the aorta. It is really
13 a transposition as it were of the veins from the
14 lung. So that they mix with veins from the rest of
15 the body.

16 The effect of this is to enlarge the
17 right side of the heart enormously, because there is
18 a huge volume of blood now having to go two trips
19 out through the lung, and again the lung is the place
20 that will accept that blood because it is more like
21 a sponge, and so blood keeps on increasingly passing
22 through the lungs and back to the heart and out to
23 the lung again and a relatively small proportion tends
24 to go through to the other side because it is easier
25 for the blood to keep on going and go out to the
lungs.



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The consequence of that is that the right heart starts to fail, the right ventricle is volume loaded, meaning that there is too much blood in it, it is coping with too much volume and, in addition, the pressure is usually high and, so, right ventricular failure is a very common feature.

In addition, in many patients, the muscles that support the cords that operate the tricuspid valve become ischemic or short of blood because of this terribly severe load on the right pumping chamber. So that the function of this valve becomes interfered with fairly early. That means that there is a lot of leakage of regurgitation of blood back into this chamber for the pumping chamber and so further emphasizes the dilemma facing that right ventricle. The course unattended is progressive failure with death.

Q Other than that which may appear from the minutes prepared by you, Dr. Rowe, and from the third page of the manuscript notes which have been marked as an exhibit, do you recall what the discussion was on September 26th about this baby?

A I think there are a number of discussions there that are incorporated in some of those notes that were addressed that are important.



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Q. Do the notes assist your
recollection to the extent you are able to expand
upon them and tell us what the discussion was on the
various matters?

A. I think so.

Q. Could you do that for us, please,
Doctor.

A. The baby was two months old
approximately, and it is not uncommon for a diagnosis
to be delayed in the recognition of that heart
defect because these babies tend not to have obvious
physical signs of congenital heart disease and they
are not necessarily blue, despite this mixing
situation here, and it is more likely to be a question
of not gaining weight very well and perhaps rapid
breathing, but in many instances not sufficient to
produce a great anxiety amongst the family or the
physician outside.

Nevertheless, once it is recognized
that there is heart disease, it is usually when they
have heart failure, when the right ventricle begins
to fail and it may take a little time to do that.

So, that was one of the points
discussed as to whether there were any features or are
any features by which the diagnosis can be detected



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earlier before the baby develops real difficulty.

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This baby, on arrival at the Hospital, had a very severe degree of heart failure with a huge heart on X-ray, meaning that the volume was enormous and the liver was greatly enlarged, which would be consistent with the right-sided heart failure.

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Now, the steps that were talked about here were, as I recall, a question of how much the cardiac catheterization study may have added to the deterioration, and this is a situation which is not totally dissimilar from that of truncus arteriosus in the effect of cardiac catheterization. These babies are already maximally stressed hemodynamically; meaning, their pressure and volume loads are heavy and the function of the ventricle may not be the best.

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So that if they have an additional stress from the performance of that sort of study, they may deteriorate quite rapidly. The reason for that is that in order to get good information for the surgeons about the point where the veins enter the right side, it is necessary to inject rather large amounts per kilogram of contrast material, X-ray contrast material to show up on cine endocardiograms or movies of the anatomy. The reason for that is that



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the material dilutes very quickly in this torrent of blood and it is a recognized risk of the procedure that a baby will, with this hyperosmolality of the blood, this excessive amount of salt that's put in, that there may be an increase, a sudden increase in the blood volume and that could tip a baby over.

For that reason, during the study, it is usual to give a diuretic in the middle of a performance, and I believe that that was done here somewhere around half way through, or thereabouts.

But the amount used in contrast was 6 millilitres per kilogram of the contrast material. I'm not sure of the exact trade name of the material, but the contrast agent that was used was given in that dose, which is about three times higher than you expect to have to use. It is a necessary risk that has to be taken in order to define the anatomy. That was done and difficulty developed within a few hours of the procedure and was attributed by the cardiologist involved to that particular complication.

In the rest of the minutes, as so carefully recorded by Mrs. Radojewski, there is comment about whether transfer of the baby to the Intensive Care Unit for respiratory ventilation might have been a good move.



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I think it is difficult for me to see, looking at the notes, what was done in that respect, but I believe that there was serious consideration of transfer, and it is not clear to me from reading the notes whether there was some factor that didn't allow that transfer.

That took up quite a bit of discussion in the sense that we wondered whether if there was difficulty in getting a transfer to the Intensive Care Unit because of occupancy there, that we perhaps should be considering the possibility of facilities of a related nature on the fourth floor.

Q. I'm sorry, can you help me? Where in the chart do you find reference to consideration as having been given to transferring the baby to the ICU?

A. You will have to bear with me while I am trying to find it.

Q. Yes, sir.

A. I think it was when Dr. Goldman - page 41. I think that was where I made the assumption Dr. Goldman had called in Dr. O'Toole and he examined the baby and ordered the baby be monitored very closely.

Q. I see. Who is Dr. O'Toole, please?

Why cannot close monitoring be provided on the ward? Cardiac and apnea monitors are available and constant or shared nursing care can be added.



CC. 6

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A. I'm not sure who Dr. O'Toole is but I assumed he was an Associate Resident, or may have been attached to the Intensive Care.

Q. Forgive me, who for that matter was Dr. Goldman?

A. Dr. Goldman would have been the resident, the Paediatric Resident on duty.

Q. I'm not sure that I understand you then, Doctor. How do you draw from the fact of Goldman's having called in O'Toole that there was some ^{thought} sort of moving this baby to the ICU?

A. Well, I assume that that reflects the matter of the senior medical resident suggesting because very close monitoring was required and we couldn't really do that effectively on that floor, that he couldn't get the patient to ICU.

Q. I'm sorry?

A. That's an assumption of course, I agree. I'm not sure whether there is any other comment anywhere else about that.

Q. I'm not aware of one, Doctor, if there is and I'm obliged to say, to suggest to you that if indeed that is the basis for the inference that consideration was being given to moving the baby to the ICU, it didn't actually leap off the page at me.



CC.7

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A. May I amplify this?

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Q. Yes, of course.

4

A. It is possible, you know,

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because I am again reminding you that I am taking
these in the broadest sense and that I am not the
physician of record.

7

Q. Understood.

8

A. That in the course of our

9

discussions about these matters that that point came
through. I was under the impression that the ICU
had been approached and I see that independently
on page 17 of Mrs. Radojewski's notes that, placed
in oxygen, plans to transfer to ICU. That's half way
down the page.

14

So, you know, I don't believe that I

15

would have made my notes at the time that you gave me
that piece of evidence.

16

17

Q. Yes.

18

A. So, I think that there must

19

have been several comments somewhere along the line
about this matter because it seems to be a fairly
definite comment in that note.

20

21

Q. Well, apparently there was some

22

reference to it at the meeting on September 26th

23

because it has apparently been recorded, not I think

24

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CC.8

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by Mrs. Radojewski, but whoever the author of those
notes was.

3

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A. Yes.

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Q But there is no indication of
who may have said it or whether indeed it was the
kind of assumption that you yourself would have made.

7

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It may well indeed have happened but
may not have been recorded in the chart is essentially
what you are saying, isn't it, Doctor?

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A. Yes.

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A. I think it was not to be expected necessarily. We would expect and hope to get that sort of baby through to operation.

Q. I see.

A. So that in that sense it is an unexpected death.

Q. Yes?

A. Because it was certainly not an inevitable death. But it is not a surprising death in relation to these sequences of events.

Q. When you say these sequences of events I won't suggest to you what you are referring to; you tell me what you refer to?

A. The deterioration after the cardiac catheterization.

Q. Now, Dr. Freedom once again wrote a reporting letter on this child, page 4, a reporting letter to the referring physician. In the second paragraph he reports:

"The catheter study confirmed the presence of total anomalous pulmonary venous return to the coronary sinus with evidence of severe right ventricular and pulmonary artery hypertension and



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"right ventricular failure. We performed a balloon septostomy because his atrial septodefect appeared somewhat small. He tolerated the procedure without incident, but approximately 7 hours after the catheter study, suddenly became profoundly bradycardic, sustained a cardiac arrest and was not able to be resuscitated."

And I am interested again in this word "suddenly."

On your review of this chart do you agree with Dr. Freedom's characterization of the onset of bradycardia as sudden?

A. Yes, I think that is true.

Q. So although the baby had some distress following the catheterization procedure, the onset of the bradycardia you agree was sudden, and what about the subsequent course of events leading from that to the arrest?

We once again have a rapid sequence of events, Doctor, or how would you characterize it? The terminal events are noted pages 41 to 2 of the baby's chart.

A. Yes. I think that would have



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OD 3

to be classified as rapid.

Q. Reading from half-way down the second paragraph on page 41. We are looking at the same thing, Doctor:

"At 1845 baby in severe distress and apex became very irregular. Code 23 placed for Dr. Schaffer. Apex fluctuating between 140 - 90. Baby started to have seizure-like activity with eyes rolling back and body became very rigid. Respirations ceased and apex fell below 50 and Code 25 placed. Cardiopulmonary resuscitation started."

And then refers to the physician's note.

A. Yes.

Q. The physician's note appears to be on the opposite page, "1900 patient became bradycardic and developed CHF", is it?

A. Complete heart block.

Q. Oh, B, is it? Complete heart block "varying ventricular rates from 90 - 150, then arrested with asystole. Resuscitation attempts for 45 minutes with no response."

Doctor, I am obliged to ask you:



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DD 4 we have looked at a number, at four charts today where there have been I believe it is fair to say a sudden onset of terminal events and then a very rapid sequence of terminal events and a consistent pattern through the four so far has been arrhythmia, very rapid movement from the arrhythmia to arrest.

We have seen I think more than one seizure-like activity or we will see it again in the course of this afternoon, and inability to resuscitate.

Is that, I hate to use the word, but is that a common terminal course for children in cardiac difficulty?

A. Yes, it may be.

Q. You say may be?

A. Yes.

Q. But is it?

A. Yes, babies die through their heart rates slowing.

Q. Yes.

A. And they are going through a series of irregularities. The electrical mode of death in babies with congenital heart disease tends to be of that direction, and the younger they are the more likely.



DD 5

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Q. Is it common that there is a sudden onset of slow heart rate, a dramatic drop in the heart rate?

A. Yes.

Q. That is common?

A. Yes.

Q. Seizure-like activity, is that common?

A. Well I think during the process of dying you can have all of those.

Q. I am sure you can. Is it common?

A. Yes.

Q. Because we are seeing these things?

A. Yes.

Q. In the charts that we are looking at?

A. Yes.

Q. Is the course of the terminal events commonly as rapid as those that we have looked at today?

A. Yes.

Q. And I want to say more about this when we have looked at a few more of these charts.

*
This is the nub of Rowe's position — that the nature of the terminal events seen here, the suddenness of their onset and the rapidity and inexorability of their course are not unusual; they are common events and patterns in the deaths of young cardiac patients.

IS IT so that a sudden onset of bradycardia, sequences of arrhythmias, bradycardia, tachycardia, vent. fib^h heart block switches back and forth from sinus to junctional rhythm are ^a common pattern of terminal events in infants with severe c.h.d.?



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D 6

Are resuscitation attempts as
unsuccessful as those in these cases appear to have
been?

A. Yes.

Q. It is not uncommon for
resuscitation efforts to fail?

A. Oh, no.

Q. All right. So if I understand
you, you are telling me there is nothing peculiar
about the course of events and their rapidity of
onset and rapidity of sequence that we have been
seeing in these charts?

A. Not given the situation for
each baby.

Q. All right. And it may be
characteristic of the terminal events of children I
assume dying from any one of a number of causes?

A. Yes.

Q. Associated with cardiology --

A. Yes, in particular congenital
heart disease.

Q. Right. Doctor, are you
satisfied on the basis of your review of this case
that baby Shrum's death and the time and manner of
his death are entirely consistent with the nature



DD 7

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and extent of his cardiac illness?

3

A. I am.

4

Q. I take it, Doctor, in fairness
you cannot go further than to say they are completely
consistent with the nature and extent of his illness?

5

6

A. Yes.

7

Q. You can go further than that?

8

A. No. You say they are consistent
with?

9

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Q. Yes.

11

A. Further than that?

12

Q. You can't go further than that?

13

A. Oh, no.

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MR. LAMEK: Thank you.

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Mr. Commissioner, I am about to move
on to another case.

16

THE COMMISSIONER: Perhaps we will
take a 15 minute break.

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MR. LAMEK: You propose to take a
break?

18

--- Short recess

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--- On resuming

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THE COMMISSIONER: Mr. Lamek?

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MR. LAMEK: Thank you, Mr.

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Commissioner.

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DD 8

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Q. Dr. Rowe, just before we move away from the Shrum chart and move on to Antonio Velasquez, I understand there is something you want to tell us in reference to Dr. O'Toole in the Shrum chart?

A. Yes, that is on page 41, thank you, Mr. Lamek.

On page 41 of the chart where Dr. Goldman had called in Dr. O'Toole and he examined the baby.

Dr. O'Toole was an Associate Chief Resident in Pediatrics and had been attached to the Intensive Care Unit. He would have been on duty presumably for the Saturday evening involved, and the way in which transfers to Intensive Care Unit are made are through calling the Associate Resident or the Resident from the Intensive Care Unit to assess the situation on the ward first.

Q. Thank you, Doctor. That's a help.

May I ask you, please, when you learned just who Dr. O'Toole was?

A. When I learned?

Q. Yes.

A. Well, I knew who he was as a



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DD 9

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resident but I didn't quite know what his status at
that particular time was.

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I think we can confirm that for you
within the next 24 hours.

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Q. Yes. When did you learn that
he was associated at that point in time with the ICU?

7

8

A. Just now.

9

Q. Just now?

10

A. Yes.

11

Q. Do you recall whether you were
aware of that back in September of 1980?

12

13

A. Well, I assumed that he would
be, since he was a senior resident, he would be the
person involved, I think that is why I believed that
the transfer to the ICU was not effected or was being
effected or trying to be effected.

16

17

Q. You are telling us the first
step would be to call someone such as Dr. O'Toole?

18

19

A. Yes, that is the procedure
by which the patient is transmitted. You can't just
ring up the ICU and say they are coming down.

20

21

Q. Right. You have to satisfy
them that this is an appropriate case for the ICU?

22

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A. Yes.

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Q. And it is impossible to tell



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from this note whether Dr. O'Toole either couldn't
take the baby at that time or decided that the baby
should be watched very closely before he decided to
admit him?

5

A. Yes, that is true.

6

7

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11

Q. Doctor, I just handed to you
a copy of the chart from the hospital of Antonio
Velasquez, and during the break we have placed on the
easel behind you and to your right a diagram supplied
by the hospital apparently depicting the heart of
Antonio Velasquez.

12

13

Once again can you tell us, please,
whether in your view of the chart the diagram
accurately depicts the anatomy of that heart?

14

A. Yes, it does.

15

16

MR. LAMEK: May that be the next
exhibit, please, Mr. Commissioner?

17

THE COMMISSIONER: Exhibit 57.

18

19

MR. LAMEK: Q. Now, Velasquez, as
I recall it --

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THE COMMISSIONER: So we won't confuse
them, do we call these diagrams diagrams? Do we call
these medical records charts or what do we do?

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MR. LAMEK: Q. Doctor, what is



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the proper designation for a document like this, not as it is bound but as it is kept in the medical records ~~of the~~ library?

A. That would be the hospital record.

Q. That is a hospital record, is it?

A. Yes.

Q. Thank you. And what should we properly call the drawing which you have just identified for us?

A. Well, it would not be part of the hospital record.

Q. No. How should we properly identify it?

A. Heart diagram. I think that would be the best or a reasonable ...

Q. It is rather diagrammatic.

A. Yes.

Q. At least as far as the arteries and veins are concerned?

A. Yes.

--- EXHIBIT NO. 57: Heart Diagram of Antonio Velasquez.

Q. Now, Antonio Velasquez, as I



DD 12

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recall, is the child who came up from the
Caribbean, did he not?

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A. He did.

5

Q. And was referred initially to
you?

6

A. Yes.

7

8

Q. Now referring, please, to the
diagram which we have just marked as an exhibit, could
you describe for us, please, the anatomy of Antonio
Velasquez' heart and the respects in which it was
anomalous, deformed, heart defects?

11

12

A. The malformation that this boy
had was tetralogy of Fallot, tetralogy meaning four
defects were present and Fallot being the name of the
French cardiologist who first described the condition.
That is spelled F-a-l-l-o-t.

16

17

?
(tacitly) described can be simply reduced to two. There
is a large defect in the ventricular septum, a large
hole in the ventricular septum, and there is an
obstruction to blood going out into the pulmonary
artery from the right ventricle.

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This obstruction is muscular, and below
the valve and is also commonly at the valve itself.

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In severe, very severe forms of the

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DD 13

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malformation because it can have different grades of severity, the pulmonary artery, as in this boy's case, can be extremely small because very little blood has traversed it prior to birth because it is a congenital abnormality and the pulmonary artery would have been obstructed right from the very beginning so the pulmonary artery doesn't grow properly. So it is small and in itself offers obstruction to pulmonary blood flow.

The consequences of this for the circulation in this particular variation of the disorder is that venous blood comes in through the vena cava as before, it goes through the tricuspid valve and has the option of going out into the pulmonary artery or through the ventricular defect and then out into the aorta.

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C/DM/ak

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So the tendency is, since there is obstruction here, for blood to predominantly go to the other side and then out the aorta. The consequence of that is that the blue blood gets onto the left side which is supposed to have only highly oxygenated or pink blood. That has given rise to the term "blue baby condition" and it is the original blue baby condition for which the first surgical interventions were possible in the 1940's.

So blue blood again comes into the right side, it is received in the usual way, goes down to the right pumping chamber in the usual way. It is then pumped towards the pulmonary artery and of course some gets out that way, but most of it will go through the hole and to the other side. What determines how much goes in one direction of the other is the severity of the obstruction at this point. This baby had very severe obstruction and very small pulmonary arteries, which is the reason for presentation at the relatively early stage.

Now the relief of this condition is provided by either repair of the malformation, that is closing the ventricular defect and opening up the area of obstruction and patching out into the pulmonary artery, or doing what was done here, which



EE2

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3 is this type of anastomosis and this is called a
4 Blalock-Taussig, Blalock is B-l-a-l-o-c-k, and
5 Taussig is T-a-u-s-s-i-g. This is a shunt which is
6 made by taking the artery going to the right arm
7 and cutting it across transecting it some distance
8 away from its origin and then taking that artery
9 and anastomizing it to the right pulmonary artery.
10 When that is done what happens is that blood from
11 the aorta will go back into the lung. So any blood
12 that has been shunted across here through the hole
13 and is on its way around the body may be, a proportion
14 of it will be turned back into the lung to make a
15 greater degree of oxygen availability, that blood
16 will come back on this side and then mix with the
17 blue blood, so that sort of thing can produce
18 alleviation of the blueness.

19 Now the repair in our institution
20 for this condition is usually done after the age of
21 two. It can be done and has been done in some
22 institutions under the age of two, but especially
23 when this anatomy is unfavourable in terms of the
24 size of the pulmonary arteries, it is usual to do
25 this so-called palliative type of surgery.

26 Q. Doctor, do you mean in the
27 case of an infant who presents with this condition



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in not a terribly serious form, the initial surgery while he is still very young will be by way of shunt to keep him operating and then going satisfactorily until he is old enough to come back for the corrective surgery, is that the normal course?

A. That summarizes what we do.

Q. Now we have heard in the course of the last few hours, Doctor, some terribly sick children with very badly deformed hearts. Would it be fair to say that the Velasquez child doesn't fall into that category of the very sick and unhelpable child of the kind we were talking about this morning.

A. He does not.

Q. And indeed it is fair, isn't it, that Velasquez was brought up to Toronto from St. Lucia with the expectation that he would be - that he would undergo palliative surgery of the kind you talked about and be sent back home functioning reasonably well and perhaps return later for the correction of his defect.

A. That was the plan, yes.

Q. You say he was catheterized on August the 20th to confirm the diagnosis that you made and the extent of the defect, is that correct?



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A. That is true.

3

Q. And surgery was successfully

4

performed on August the 21st?

5

A. Yes.

6

Q. And he went from surgery to

7

the ICU for a brief stay?

8

A. Yes, a short stay.

9

Q. He stayed there overnight

10

and on August the 22nd, was transferred back to the
ward?

11

A. Yes.

12

Q. Apparently having an unevent-

13

ful and satisfactory post-operative course?

14

A. Yes.

15

Q. And he seemed, did he not,

16

to be progressing well?

17

A. Yes.

18

Q. And he died in the early

19

A. Yes.

20

Q. Doctor, is it fair to say

21

that baby Velasquez cardiac problems do not seem

22

to have been the cause of his death?

23

A. Yes.

24

Q. And it is fair to say that

25



1
2 he at least was not expected to die?

3 A. No.

4 Q. And certainly not when he did?

5 A. No.

6 Q. And in the minutes of the
7 September 26th meeting you wrote that he died
8 unexpectedly. Now, there is that word again and
9 this time you used it. What did you mean by
10 "unexpectedly" there?

11 A. I meant that there was no
12 way that I could see that his heart condition could
13 possibly have accounted for that death.

14 Q. And Doctor is it fair to say
15 that the death of baby Velasquez caused something
16 of a stir among the cardiologists in your Division?

17 A. Yes, that would be fair.

18 Q. And equally is it fair that
19 you never arrived at a confident explanation of the
20 child's death?

21 A. That is correct.

22 Q. And indeed at page 7 of
23 his report, and I will show it to you, Dr. Bain also
24 recorded that his death is really unexplained and
25 there may be some relationship to codeine or naloxone,
and I will come back to that.



EE6

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A. Yes.

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Q. And with that summary,

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Dr. Rowe, I take it you would not disagree?

5

A. No, I would not disagree.

6

There was some comment about other possibilities in terms of infection and failure but I think that in the summary of the outcome we were not content to call that an explanation.

7

8

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Q. On page 15, the chart, the

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letter that you wrote to the referring physician

11

in St. Lucia.

12

THE COMMISSIONER: Page 15.

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MR. LAMEK: Page 15 of the chart,

14

Mr. Commissioner, and that at a time ---

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THE COMMISSIONER: I don't have

16

page 15 I don't think.

17

MR. LAMEK: Mr. Commissioner, this

18

is an oddly numbered chart, mine goes to page 16

19

and then starts again at 1 and how that occurred I

20

do not know, but there is a double numbering in that.

21

THE COMMISSIONER: This is the letter

of August the 28th, is it?

22

MR. LAMEK: Yes, I am looking at a

letter dated August the 18th.

23

THE COMMISSIONER: August the 18th?

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MR. LAMEK: Yes.

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THE COMMISSIONER: The first 15?

4

MR. LAMEK: The first page 15,

5

Mr. Commissioner, I am sorry.

6

Q. Dr. Rowe, I believe you and

7

I have the same working papers.

8

A. If you give me the date of

9

the letter and to whom it is addressed perhaps I
can identify it.

10

Q. August the 18th to Dr. R. J.

11

Rao, Victoria Hospital, St. Lucia, West Indies.

12

A. No, I don't, I am sorry, I

13

can't find it.

[Page was located w. assistance from Counsel]

14

Q. And that letter as I understand

15

it was written, you can see the date, Doctor, between
the performance of the surgery, no, no, before the
surgery, but again expressing every expectation that
baby Velasquez would be helped and that the shunt
that was to be performed in the next week-on page 2
of your letter, would provide him with a good deal
of benefit for several years before he needs a
repair of his malformation.

21

22

Now, could we look at the

23

progress notes after the time he returned to Ward A
from ICU and those are found at page 46 and following.

24

25



1
2 I am happy to say I think there is
3 only one page 46 in the chart. It is recorded on
4 the lower half of page 46 that on August 22nd:

5 "Patient returned to 4A from the ICU."
6 The surgery had been performed you will recall on
7 the 21st.

8 I ask you, Doctor, if you would look
9 through the progress notes from the time of his
10 return and until the time of his death which occurred
11 in the early hours of the morning of August the 24th
12 and tell me if there is anything in those notes that
13 would give any indication that this child was at
imminent risk of death, or risk of imminent death?

14 A. Nothing there to suggest that.

15 Q. He did seem to be in some
16 pain and for that he was receiving codeine I under-
stand and he had a fever as well, did he not?

17 A. He had fever and they thought
18 he might be an early heart failure.

19 Q. Yes. In fact he was treated
20 with diuretic and did the results confirm any
21 suspicion of early congestive heart failure?

22 A. He didn't have any major
diuresis so that would be against that but not completely.

23 Q. He did seem to be in some
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pain, had a bit of fever, and as you say infection was suspected.

A. Yes, it was.

Q. And lab work was performed?

A. Yes. Appropriate investigations were done.

Q. And there does not seem to have been any confirmation by way of the bacteriological reports that there was any infection involved here?

A. No.

Q. Then we go to page 48, if we may, please. The progress note at 7:30 in the evening on August the 23rd at the top of the page. That seems to be a note, and I believe that signature would be Dr. Wilkins, are you able to help me at all with that, Doctor?

A. No, I'm sorry, I can't recognize that.

Q. It appears to be a physician's note rather than a nurse's note.

A. I would think so the way the signature is written.

Q. Nurses are taught to write legibly, are they?



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A. Usually.

Q. He records:

"Some tachycardia probably due to
both fever and pain."

And there is an analgesic prescribed for the pain
or the fever, or both. But as at 7:30 notwithstanding
a measure of tachycardia, Dr. Williams or Wilkins or
whoever it was, does not appear to have been greatly
concerned?

A. No.



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Q. So, there is certainly no suggestion there that the child is in danger or should be sent to an ICU or anything of that sort, is there?

A. No.

Q. And then the note on August 24th:

"I received a call from the 4A nurses at about 3 o'clock, 3:00 a.m., informing that this child's heart rate had dropped to below 90 and was irregular.

When I arrived, the baby was in no respiratory distress, was somnolent and difficult to arouse, stimulation caused restlessness and movement but child did not wake up."

Upon reading that chart, Doctor, what opinions if any would you form as to the state of that child or, more important, the cause of his state?

A. Well, that's not a usual event with heart failure or anything, that sounds like a sedating effect of some sort.

Q. And the child had been on codeine?



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A. Had been on codeine, yes.

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Q. And would it therefore have

4

occurred to you that this child was responding to
the codeine in too extreme a way?

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A. Yes, that would be possible.

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Q. Would that be the probable

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explanation to you, Doctor, from one observing that
condition?

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A. Yes, I think under the circum-

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stances and further observations about pupils and
so on.

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Q. Would anything else have

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occurred to you by way of a likely explanation for
that condition?

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A. No.

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Q. And the good physician

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presumably arrived at the same conclusion because

17

he administered a drug which is called differently

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in different places of this chart Narcan or

19

Naloxone. Are those the same thing?

A. Yes.

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Q. And what is Narcan or Naloxone?

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A. Well, they are medications that

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are used to act in a way as an antidote to a narcotic

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overdose.

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Q. And an appropriate drug to administer if you suspect that there has been an over-reaction to a drug like codeine?

A. Yes, I would think so.

Q. But he says he administered initially .2 milligrams of Narcan IV, intravenously. You have told me what is Narcan. Is .2 milligrams an appropriate dose?

A. It's a rather larger amount than what we would call an appropriate dose, about twice the usual amount.

Q. How is the usual or the recommended dose calculated, Doctor?

A. Well, that's usually - I don't know how that is calculated but there is usually a range of doses which is provided in, as with most drugs, our handbooks. In the Hospital handbook which you have already seen there is usually an indication of that amount.

Q. Okay.

A. The usual dosage range.

Q. You said the dose that was administered is approximately twice the, what did you say, the usual amount or the normal amount or the recommended amount?



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A. Recommended dose, yes.

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Q. Fine. Now, when Narcan is given to counteract the effects of a drug like codeine, what is the proper pattern and scheme of administration. One dose and leave the baby for a while. What do you do, what is the recommended procedure?

A. I think the initial dose is given and then it can be repeated because it is generally regarded as a safe drug to repeat.

Q. Repeat it how soon after the initial dose?

A. Well, you might do it within a few minutes.

Q. Until you have achieved the response that you are looking for?

A. Yes.

Q. And counteracted the apparent effects of the codeine?

A. Yes.

Q. And it appears from the note, does it not, that after the initial administration of Narcan, .2 milligrams of Narcan, baby Velasquez did indeed respond to some measure, his heart rate increased, didn't it, went up to 130 to 140?



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A. I'm not sure of the detail.

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Q. I'm sorry?

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A. I'm not sure of the detail.

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Q. Well, the note on page 49

I think tells us, does it not?

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A. I am reminding you again sir,

7

that I'm not the responsible physician here.

8

Q. No, I understand. But never-

9

theless, I want to be sure I am reading this ~~so~~

10

aright: "Because of the lethargy ... " the doctor

11

records on page 49 of the chart.

12

" ... and small pupils, I gave 0.2

13

milligrams of Narcan IV - over the

14

next five minutes the baby became more
active though not fully awake and

15

heart went up to about 130, 140 a

16

minute, pupil size increased, and it

17

was felt that changes were due to

18

partial reversal of the narcotic

19

analgesic."

20

A. Yes.

21

Q. And presumably the good doctor

22

did not regard that as a sufficient reversal of the
effects of the codeine and he therefore administered,

23

as you have suggested, a further dose, I take it

24

about approximately five minutes after the first dose?

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A. Yes.

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Q. And it seems that again the second dose was twice the recommended dose for a baby of this weight?

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A. Yes.

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Q. And he records:

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"But very shortly, in less than one minute, the baby had abnormal opisthotonic posturing occurring the ECG monitor became flat and a Code 25 was called immediately".

12

13

Opisthotonic posturing, that is where the back arches and there is seizure like activity?

14

A. Yes, seizure like activity.

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Q. Yes. And the monitor failed to record any heart activity, monitor flat and Code 25 was called immediately and the crash cart team, resuscitation team was not able to resuscitate this baby, was it?

19

A. No.

20

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Q. Now, Doctor, that death obviously caused a good deal of concern among your group?

22

A. Yes, it did.

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Q. It occurred in the early hours of



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Sunday, August 24th and on Monday morning there was, wasn't there, a meeting of the senior professors of the Division of Cardiology held at 9 o'clock to review the whole matter?

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A. Yes.

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Q. And the record of that meeting is contained in the chart right at the very beginning on page 1, the first page?

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A. Yes.

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Q. And at the bottom of the second page it records who was present at the meeting, yourself and Dr. S. Olley, Fowler and Freedom and the entire course of events was reviewed.

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Now, on page 3:

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"It was concluded that appropriate measures were taken, the single exception being that the dose of Naloxone was above the recommended dose in the Hospital Resident's Handbook and it was further considered that that alteration in dose was of such a low order of magnitude with the wide safety range reported that it was unlikely to have been an excessive dose."

I take it, Doctor, being blunt about it,



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the concern was that perhaps this baby had died
as a result - the initial concern or question was
whether the baby had died as a result of an over-
dose of a drug?

A. Yes.

Q. But you were satisfied as a
result of that meeting that with the particular
drug in question, the excess over the recommended
dose would not normally be sufficient to cause
difficulty to a child, let alone death?

- - - -



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A. Yes, we had the physician involved in the incident. The cardiologist who is involved is a responsible physician who had already done some further consultation on that point, but that was a conclusion reached Monday. And, I might say, some time after the coroner had been notified about this event.

Q. Yes. I want to come back to that in a moment.

But as you say, at that time, that is to say, at 9 o'clock on Monday, August the 25th, I take it you had the report of Dr. Wilkinson, which is set out at pages 4 and 5 of the Chart and dated noon, August 24, 1980. Dr. Wilkinson apparently having been a pediatric resident who had administered the naloxone.

A. Yes.

Q. To baby Velasquez.

A. Yes.

Q. You had that report available to you at the meeting on the Monday morning?

A. I'm not sure whether we had that at the meeting, whether we had that available at that time in that form, but we surely had either a handwritten account that is the equivalent.



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Q. All right. Now, there is certain information set out in a memorandum from Dr. Freedom to yourself starting at page 6 of the chart, the memorandum dated August 26th, which was the Tuesday of course. But in that memorandum Dr. Freedom recounts, does he not, certain things that he did on Sunday?

A. Yes.

Q. Sunday the 24th subsequent to the death of baby Velasquez. He says, in the third paragraph of the memorandum that:

"I was notified at about 3:30 early Sunday morning that this youngster had sustained a cardiac arrest and despite intensive resuscitative efforts, the baby could not be resuscitated and died. On review Sunday morning of the events leading to this child's death, I was concerned about the temporal relationship to the second dose of narcan."

Does he mean by that the short interval between the two doses and the subsequent? Was he referring to the interval between the



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administration of the second dose and the arrest.

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The temporal relationship to the second dose of

4

narcan.

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A. Yes. I'm not sure what he

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means.

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Q. Okay. Did you ask him what

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he meant when you received the memorandum?

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A. No, I think I understood that

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there were doses given and I don't believe I would

have dwelled on that, I can't say.

11

Q. Okay.

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A. Perhaps you can rephrase

13

your question for me?

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Q. It may not matter very much.

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I thought that perhaps he was saying that he was

16

concerned that the arrest had followed so closely

17

in time after the administration of the second dose

of narcan.

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A. I thought that was just

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a descriptive event of what happened. I didn't see

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any implication.

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Q. All right. He then goes on

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to talk about the recommended dose and the actual

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dose as administered to this child and goes on:

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"On my examination of the facts, my

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"own personal knowledge was that Narcan did not suppress the cardiovascular system or lead to irreversible hypotension. I confer with Dr. Al Conn, an anesthesiologist, and Head of the Intensive Care Unit, and he corroborated this fact. Indeed I also spoke to Dr. S. MacLeod, Head of Clinical Pharmacology, and he stated that Narcan even in very toxic doses is not known to have an adverse cardiovascular effect."

Now, did he so report to the meeting on the Monday morning that he had had those consultations and that his own information had been confirmed that even overdoses, large overdoses of Narcan are not known to affect the cardiovascular system?

A. I can only conclude that from what I have written on page 3, paragraph 2.

Q. Okay. Other than that, do you have any independent recollection for saying that?

A. I don't have any independent recollection, no.



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Q. All right. So, going back to your report of the August 25 meeting, on page 3 of the chart, Doctor, you report that:

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"The conclusion reached was that the probability was the greatest that this was an idiosyncratic drug response in an infant whose post-operative course was complicated by early heart failure and probably infection."

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If I understand ~~that~~ you ~~were~~^a right, and I want to be sure that I do, the conclusion was that the likely answer here was that baby Velasquez must have had an unusual response to the medications that he had received?

A. That was the interpretation.

Q. Something in the nature of an allergic response or something of that sort?

A. That would be one way of describing it.

Q. That might be a layman's way of describing it.

A. Yes.

Q. All right. But ^a/_h not too ~~an~~ inaccurate way of describing it?

A. No.



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Q. I want to be fair. He had had an abnormal response that you would not expect in the normal population?

A. Yes.

Q. I take it, Doctor, that you have never received any clear confirmation of that conclusion?

A. No.

Q. And without I assure you intending to be critical in the slightest, I suggest to you that that conclusion was arrived at because you could find no other explanation for the course of events that led to baby Velasquez' death. Is that fair?

A. That's right.

Q. I don't know, Doctor, if, since August 25th, 1980, you have been asked this question but I have to ask you: were the terminal events recorded in the chart of this child consistent with digoxin intoxication?

A. Yes.

Q. That is to say, a measure of arrhythmia, slowing of the heart, seizure-like activity?

A. Yes.

"It may be" is an astonishingly guarded response to this question in light of the fact that at the end of his evidence in chief, Rowe included Velasquez in the group of 6 children whose deaths he considered "most likely" to have been caused by dioxin intoxication!



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Q. Doctor, however remote that
may have been at the time and however distant from
your minds, is it not at least as plausible
explanation of this death as the suggested idiosyn-
cratic reaction which then came to mind.

A. At this stage?

Q. Yes.

A. It may be.

Q. Now, Doctor, you have told me
this was one of the two ward deaths in July and August
that were reported to the Coroner, and in that regard
can we look, please, at page 24 of the chart, and
again there is only one page 24 but it is a surprising
distance into the chart. A document called death
check list.

Now can you tell me first when and
by whom is this check list normally completed?

A. I do not know the answer
to that question.

Q. I take it therefore you
certainly do not know the answer to the question
who completed this check list and when?

A. That would be correct.

Q. I refer to the second section,
the rubric being "attending staff or house staff"



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and in particular, Item No. 7, "Notify Coroner, if necessary", with a box, "Not necessary" with another box, and it appears, does it not, that somebody has checked the box indicating not necessary to notify the Coroner?

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A. It does.

8

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Q. Did you become aware that this check list had been completed in that way?

10

A. No, because I knew the Coroner had been notified.

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Q. Yes. In the circumstances of this death as you knew them, are you concerned that an employee of the Hospital completing this form apparently thought it not necessary to notify the Coroner? Well, that may be unfair since we don't know who did it.

17

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A. It surprises me because everyone must have known we were going to report it to the Coroner.

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Q. Now Dr. Freedom, of course, as I understand it, felt strongly that the death should be reported.

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Was there any dissent from that view at the meeting on Monday the 25th of August?

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A. None at all.



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Q. Indeed Dr. Freedom had called the Coroner on Sunday, August 24th had he not? He reports that in his memorandum to you?

A. Yes.

Q. And that I think is at page 6?

A. Yes.

Q. The first page of the chart, of the record, he says that having done his consultations with MacLeod and Conn, he said:

"With these facts in hand I contacted the Coroner on call for Sunday, Dr. I.V. Gartha...and discussed this case with him."

And it appears from Dr. Freedom's note, does it not, that the Coroner didn't seem to be very interested in accepting it as a Coroner's case?

A. That is the way that sentence reads to me.

Q. Yes. Did Dr. Freedom ^{So}~~still~~ report to the meeting on Monday?

A. Yes.

Q. And what then was done?

A. Well, we felt as we have said in the last but one paragraph on 003 that Dr. Freedom should approach the Coroner again on



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this matter to see if he wished to reverse that decision.

Q. And did he do that, do you know?

A. I don't know what happened after that. I cannot recall what happened after that, but I know he must have done so. I do not know the...

Q. Certainly the autopsy report, the autopsy conducted at the Hospital is a report in the form pursuant to the Coroner's Act, and I believe that to be found at the second page 2 of the report, of the record. After the first 15 or 16 pages we start at 1 again. That second page 2. It appears to be an autopsy report in the Coroner's Act form, and on the third page of that autopsy report, Item 8, cause of death is entered as undetermined. You have not yet been able to find ---

A. I have not been able to find it but I will get there.

Q. It is not worth spending a lot of time on in this case.

Was an inquest ---

A. Undetermined.

Q. Was an inquest held into this



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death, Doctor?

A. I don't believe so.

Q. Now other than the account of the course of Velasquez as disclosed in the chart, in the record, and as summarized in your minute, was there any discussion of this death at the September 26th meeting?

A. Well, I would have to look again at my colleagues' voluminous notes. I think that the only point about that in the discussion was the possible relationship, you know, to the administration of drug.

Q. Yes.

A. And why there would have been an error in dosage, although and despite the fact that that may not have had very much to do with it.

Q. Yes.

A. Nevertheless it was rather disconcerting to everybody that they had made a mistake in the dose, so that the discussion really centred around ways in which that might be avoided, the recognition being there that at the time of 25 calls and the considerable tension that surrounds the administration of resuscitation there is plenty of opportunity for a mistake, so the recommendation



1
2 was made that instead of having to pore through
3 the fine print of the Residents' Handbook if you
4 weren't sure of this ---

5 Q. Yes.

6 A. --- that there should be a
7 large chart made up rather like that for visually
8 handicapped individuals which would be available on
9 resuscitation charts on the ward.

10 Q. Now, Doctor, I have asked
11 you this at another time and in another place. I
12 asked you whether a copy of the card that was made
13 up in implementation of that recommendation is
14 still available and I don't think I have heard back
15 from you. Is a copy still available?

16 A. We are in the process of
17 trying to find it because since 1981 as you may know
18 the so-called crash carts and the pharmaceutical
19 contents of those carts have been redesigned.

20 Q. Yes.

21 A. And the present dosage
22 schedule which is displayed in a laminated legal
23 stationery size piece of paper does not resemble
24 in any way the enlarged piece of art that we had
25 committed to us from the Visual Education Department,
and I am in the process of trying to find where



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somebody would have put that.

They do have lists, however, on each
cart with all dosages intact.

It would be difficult for someone
at my stage to actually read it in the middle of
the night, and that is why I still think we might
try to press for a larger print.

MR. LAMEK: Mr. Commissioner, I
was about to move to the third child whose death
was discussed on September 26th, but I see it is
4:25.

THE COMMISSIONER: Yes. All right.

MR. LAMEK: Dr. Rowe ^{has} had a long
day and I know you have had. Is this an appropriate
time to break for the day.

THE COMMISSIONER: I wonder if I
could just ask one question.

How common is it for you upon the
death of a child to be without any real explanation?
I take it this was a speculation about possibly
some idiosyncratic drug reaction.

How common is it for you to be without
any real knowledge of the cause of death upon the
death of a child in the hospital?

THE WITNESS: I would say that is



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very uncommon.

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THE COMMISSIONER: "Very" is a

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very relative word.

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THE WITNESS: It is extremely

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uncommon.

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THE COMMISSIONER: Does it never

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happen?

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THE WITNESS: No, I think it

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happens.

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THE COMMISSIONER: It certainly

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happened in this instance.

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THE WITNESS: Yes.

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THE COMMISSIONER: Does it happen
once a year? Once a decade? Once a month?

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THE WITNESS: On the Cardiac Ward

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I personally cannot recall of anything since I have
been back there since '74.

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THE COMMISSIONER: I'm sorry, you

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can't?

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THE WITNESS: I can't recall a

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similar type of situation since I have been back in

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Toronto on that ward, so I wouldn't be able to speak

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for the entire Hospital in this regard and it might

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be possible to get that sort of information from

24

others.

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THE COMMISSIONER: Yes. Anything
else then, Mr. Lamek?

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MR. LAMEK: Not for me,
Mr. Commissioner.

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THE COMMISSIONER: Yes, Miss Symes?

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MS. SYMES: Mr. Commissioner, could
I ask you again and Mr. Lamek would it be possible
to mark the patients' charts which are going to be
referred to tomorrow as exhibits tonight?

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THE COMMISSIONER: Yes.

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MS. SYMES: It is much easier to
follow Dr. Rowe's testimony if we go through the
charts the night before.

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THE COMMISSIONER: Yes. Is that
possible, Mr. Lamek?

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MR. LAMEK: It is not entirely,
I'm afraid. Let me see what I can do.

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I don't think this is something I
am able to do today, and I apologize to Miss Symes
because of that. I am not exactly sure of the
sequence in which I am going tomorrow. I think I
know but I am not really sure.

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Maybe we could mark a whole bunch of
charts of this stage and then people can bring them
just as I have to bring them and they can make the

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selection when they get here.

THE COMMISSIONER: Yes.

MR. LAMEK: There is no reason
why we can't do that.

THE COMMISSIONER: Would you like
to stand down, Doctor, until tomorrow morning?

THE WITNESS: Thank you.

MR. STRATHY: I don't know know
if Mr. Lamek is going to need Dr. Rowe to identify
the exhibits.

THE COMMISSIONER: Oh, yes, sorry,
I forgot.

MR. LAMEK: Q. Dr. Rowe, we are on
the old recognition game again. I am showing you what
I believe to be a copy of the chart of hospital
record of Alan Perreault.

Can you help me with that, please?

A. I believe that is his record.

Q. Thank you. Next --

THE COMMISSIONER: Shall we give
them exhibit numbers as we go along?

MR. LAMEK: Yes.

THE COMMISSIONER: Exhibit 58.

---EXHIBIT NO. 58: Hospital Records of Alan
Perreault.



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MR. LAMEK: Q. The next record I believe to be that of Amber Dawson. I wonder if you could recognize that for me, please?

5

A. Yes.

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MR. LAMEK: Thank you. Exhibit 59, Mr. Commissioner.

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THE COMMISSIONER: Exhibit 59.

9

---EXHIBIT NO. 59: Hospital Records of Amber Dawson.

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MR. LAMEK: Q. Next is a record of a child and the Hospital identifies as baby girl Hoos and I believe to be Lillian Hoos.

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A. Yes, it is Lillian Hoos.

14

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MR. LAMEK: Exhibit 60.

16

---EXHIBIT NO. 60: Hospital Records of Lillian Hoos.

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MR. LAMEK: Q. Next, Dr. Rowe, the record of Brain Gage.

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A. Yes, that is the record of Brian Gage.

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Q. And finally that of Richard McKeil?

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THE COMMISSIONER: Brian Gage will be 61.



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---EXHIBIT NO. 61: Hospital Records of Brian
Gage.

MR. LAMEK: And McKeil, 62.

THE WITNESS: This is McKeil.

MR. LAMEK: Thank you, Doctor.

---EXHIBIT NO. 61: Hospital Records of Richard
McKeil.



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THE COMMISSIONER: What is the date
of death of the baby, Perrault?

MR. LAMEK: I'm sorry, Mr. Commissioner?

THE COMMISSIONER: Date of death of
the Perrault baby?

MR. LAMEK: I am sorry, Mr. Commissioner,
I am still losing the name.

THE COMMISSIONER: Perrault, the first
one?

MR. LAMEK: Oh, Perrault?

THE COMMISSIONER: Perrault, yes, I am
sorry.

MR. LAMEK: Perrault died July the 8th,
1980.

THE COMMISSIONER: That is Perrault,
is it, in the Statement of Facts?

MR. LAMEK: It is Perrault,
P-e-r-r-a-u-l-t.

THE COMMISSIONER: Thank you very much.
Thank you, I just misheard it. Yes, I have it now,
thank you.

All right, thank you then, until ten
o'clock tomorrow morning.

--- Whereupon at 4:30 p.m. the Hearing adjourned
until Thursday, July 14th, 1983, at the hour
of 10:00 a.m.

